



88015425

PB 195 658

FEDERAL PUBLIC LAND LAWS AND POLICIES RELATING
TO USE AND OCCUPANCY-VOLUME II

Daniel, Mann, Johnson, & Mendenhall
Los Angeles, California

November 1970

SURPLUS
to
Library Needs

NATIONAL TECHNICAL INFORMATION SERVICE

Distributed ... 'to foster, serve
and promote the nation's
economic development
and technological
advancement.'

U.S. DEPARTMENT OF COMMERCE

HD
224
.D264
1970
v. 2

~~LIBRARY~~
~~Bureau of Reclamation~~
~~Denver, Colorado~~
Bureau of Land Management
Bldg. 50, Denver Federal Center
Denver, CO 89225

c-1

KF/
5602
D184
v.2

Daniel, Mann, Johnson &
Mendenhall, Los Angeles.
Federal public land laws and
policies relating to use and
occupancy. Rev. ed.

#2087343
ID: 88015425

2-1
PB195658

HD
224
D264
1970
V.2

FEDERAL PUBLIC LAND LAWS AND POLICIES
RELATING TO USE AND OCCUPANCY

Prepared for the
Public Land Law Review Commission

by

Daniel, Mann, Johnson & Mendenhall
Los Angeles, California

Volume II

Republished with revisions
November 1970

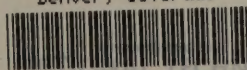
Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

Prepared under contract with the
Public Land Law Review Commission.

The opinions, findings, conclusions
and data expressed in this publication
are those of the authors and not nec-
essarily those of the Public Land Law
Review Commission.

This publication constitutes only one
of a number of sources of information
utilized by the Commission in the con-
duct of its public land study program.

BUREAU OF LAND MANAGEMENT LIBRARY
Denver, Colorado



88015425

INFORMATIONAL
SERVICE

Vol. 71-373

Volume II

CHAPTERS X-XIV

TABLE OF CONTENTS

Page

PART 3

RESOURCE BASE AND ITS USES

CHAPTER X - RECENT AND PRESENT PATTERNS OF LAND USE .	X-1
I. RECENT AND PRESENT PATTERNS OF LAND USE IN THE CONTIGUOUS UNITED STATES (ALL OWNERSHIPS)	X-3
II. RECENT AND PRESENT PATTERNS OF DISPOSED SECTION 10 LANDS	X-6
A. Acreage of Disposed Lands by Occupancy Use: 1958-1967	X-6
B. Acreage of Disposed Section 10 Lands by Geographic Area: 1958-1967	X-8
C. Trends in Disposed Section 10 Acreage: 1958-1967	X-8
D. Disposed Section 10 Lands by Agency: 1958-1967	X-9
1. Transportation	X-9
2. Water Transmission	X-9
3. Residential	X-9
4. Light Industrial/Commercial	X-10
5. Heavy Industrial	X-10
6. Community	X-10
7. Education/Science/Research	X-10
8. Other Non-Federal Government	X-10
E. Disposals of Section 10 Lands by Applicable Law: 1958-1967	X-10
1. Bureau of Reclamation	X-16
2. National Park Service	X-16
3. Bureau of Land Management	X-16
4. Forest Service	X-17

TABLE OF CONTENTS (Continued)

	<u>Page</u>
F. Prices for Disposed Lands	X-17
1. Federal Agencies	X-18
2. State Agencies	X-20
3. Private Landowners	X-20
4. Pricing by Occupancy Use	X-20
III. RECENT AND PRESENT PATTERNS OF RETAINED SECTION 10 LANDS	X-22
A. Occupancy Use of Patterns of Section 10 Lands Retained by Department of Defense, 1968-1969	X-26
B. Occupancy Use Patterns of Section 10 Lands Retained by Department of the Interior, 1967	X-26
C. Occupancy Use Patterns of Section 10 Lands Retained by the Department of Agriculture, U. S. Forest Service, 1959, 1961, 1963, and 1965	X-29
D. Occupancy Use Patterns of Section 10 Lands Retained by the Department of the Interior and Department of Agriculture (Forest Service)	X-30
E. Acreage in Retained Lands by Tenure, 1958-1967	X-30
1. Permits	X-31
2. Leases	X-31
3. Licenses	X-31
4. Easements	X-32
5. Memoranda of Understanding	X-32
F. Current Charges for Retained Lands	X-32
1. Charges by Level of Ownership	X-33
2. Charges and Tenure Conditions by Occupancy Use	X-34

TABLE OF CONTENTS (Continued)

	<u>Page</u>
PART 4	
SPECIAL USES OF THE RESOURCE BASE	
CHAPTER XI - EXPANDING COMMUNITIES	XI-1
I. SIZE OF TRACT MOST SOUGHT AFTER FOR EFFICIENT DEVELOPMENT	XI-3
A. Industrial Land: Heavy and Light	XI-5
B. Public Service Buildings	XI-6
C. Residential Land	XI-6
D. Reserve Open Space	XI-6
II. COMPOSITION OF THE MIX OF LAND ALLOCATED TO USES ASSOCIATED WITH NORMAL EXPANSION IN VARIOUS SIZES OF COMMUNITIES	XI-9
III. EXAMINATION OF FIVE EXPANDING COMMUNITIES	XI-11
A. Alamogordo, New Mexico	XI-11
1. Background	XI-11
2. Section 10 Lands	XI-12
3. State Lands	XI-15
4. Private Lands	XI-15
5. Problems Associated with Urban Expansion and Federal Lands	XI-16
B. Aspen	XI-17
1. Background	XI-17
2. Section 10 Land	XI-18
3. State Lands	XI-18
4. Private Land	XI-18
5. Problems Associated with Urban Expansion and Federal Lands	XI-20
C. Flagstaff, Arizona	XI-21
1. Background	XI-21
2. Section 10 Lands	XI-21
3. State Lands	XI-24
4. Private Lands	XI-24
5. Problems Associated with Urban Expansion and Federal Lands	XI-25

TABLE OF CONTENTS (Continued)

	<u>Page</u>
D. Reno, Nevada	XI-26
1. Background	XI-26
2. Section 10 Lands	XI-27
3. State Lands	XI-28
4. Private Lands	XI-28
5. Problems Associated with Urban Expansion and Federal Lands	XI-32
E. Salt Lake City, Utah	XI-32
1. Background	XI-32
2. Section 10 Lands	XI-33
3. State Lands	XI-35
4. Private Lands	XI-36
5. Problems Associated with Urban Expansion and Federal Lands	XI-38
IV. SECTION 10 LAND DISPOSALS FOR URBAN OCCUPANCY, 1953-1967	XI-41
A. Land Disposed for Urban Occupancy by the Bureau of Land Management, 1953-1967	XI-41
1. Small Tract Act	XI-42
2. Recreation and Public Purposes Act	XI-42
3. Public Land Sale Act	XI-42
4. Townsite Laws	XI-45
B. Land Disposed for Urban Occupancy by the Forest Service, 1958-1967	XI-45
CHAPTER XII - NEW COMMUNITIES	XII-1
I. DEFINITION	XII-3
II. NUMBER OF NEW COMMUNITIES CREATED AND AREA ABSORBED	XII-4
III. EXAMPLES OF PREVAILING MARKET PRICES FOR NEW COMMUNITY LANDS	XII-9
IV. POPULATION PROJECTIONS FOR NEW COMMUNITIES IN THE UNITED STATES	XII-10

TABLE OF CONTENTS (Continued)

	<u>Page</u>
V. INGREDIENTS FOR SUCCESS IN NEW COMMUNITIES	XII-11
A. Planning	XII-11
B. Industrial Base	XII-13
C. Land Use Mix	XII-14
D. Land Costs and Financing	XII-15
VI. DESIRABLE SIZE AND POPULATION	XII-19
VII. NEW COMMUNITY DEVELOPERS AND THE FEDERAL GOVERNMENT	XII-20
VIII. EXAMINATION OF TWO NEW COMMUNITIES	XII-21
A. South Lake Tahoe, California	XII-21
1. Background	XII-21
2. Land Use Patterns	XII-21
3. Problems Related to Adjacent Federal Land	XII-22
B. Richland, Washington	XII-24
1. Background	XII-24
2. Land Use Patterns	XII-26
3. Problems	XII-26
IX. MERITS OF NEW COMMUNITIES	XII-28
X. THE ROLE OF THE FEDERAL GOVERNMENT	XII-29
CHAPTER XIII - VACATION HOME USE	XIII-1
I. DEFINITION OF VACATION HOME USE	XIII-3
II. METHODOLOGY	XIII-4
III. POLICIES TO PROVIDE LAND FOR VACATION HOME SITES	XIII-4
A. Policies of Federal Agencies	XIII-5
1. Policies of the U.S. Department of Agriculture, Forest Service	XIII-9
2. Policies of the United States Department of the Interior	XIII-10

TABLE OF CONTENTS (Continued)

	<u>Page</u>
B. Policies of States	XIII-12
1. Pennsylvania	XIII-12
2. Wisconsin	XIII-12
3. Washington	XIII-13
4. California	XIII-13
C. Policies of Private Ownership	XIII-14
1. Leasing	XIII-14
2. Sales	XIII-15
IV. GENERAL REVIEW OF LEASING FACTORS AND CONSIDERATIONS	XIII-15
A. The Rationale of Leasing	XIII-15
1. Lessor's Interest in Leasing	XIII-15
2. Lessee's Interest in Leasing	XIII-15
3. Term of Tenure of the Leasehold	XIII-16
4. Lease Rent	XIII-17
5. Leasehold Improvement and Depreciating Assets	XIII-17
6. Comparison of Leasing with Ownership	XIII-17
7. Value or Worth of a Leasing Opportunity	XIII-18
B. General Conditions Specified in Leases or Permits	XIII-18
C. Problem Areas of Leasing	XIII-19
V. CONDITIONS OF TENURE FOR VACATION HOME PERMITS	XIII-21
A. Tenure Conditions in Forest Service Permits for Vacation Home Sites	XIII-21
1. Terminable Permits	XIII-21
2. Term Permits (Authorized by Act of March 4, 1915)	XIII-25
3. Identification of Problem Areas With Term Permits	XIII-26
B. Tenure Conditions in National Park Service Permits for Vacation Home Sites in National Recreation Areas	XIII-28

TABLE OF CONTENTS (Continued)

	<u>Page</u>
C. Tenure Conditions in Vacation Home Site Leases on State Lands	XIII-28
D. Tenure Conditions in Private Ownership Leases	XIII-28
E. Summary of Conditions of Tenure	XIII-29
VI. CHARGES FOR VACATION HOME PERMITS AND LEASES	XIII-36
A. General Criteria for Lease/Permit Rates	XIII-36
B. Charges for Vacation Home Permits by Federal Agencies	XIII-36
1. Forest Service	XIII-36
2. National Park Service	XIII-45
3. Identification of Problem Areas Related to Permit Fees	XIII-45
C. Charges for Vacation Home Sites on State Lands	XIII-46
D. Charges for Vacation Home Sites on Private Lands	XIII-47
1. Lease Rates	XIII-47
2. Selling Prices.	XIII-49
E. Summary of Permit Fees, Lease Rates, and Selling Prices of Vacation Home Sites, by States	XIII-49
VII. PERMIT CONDITIONS AND ACTUAL PRACTICES REGARDING IMPROVEMENTS CONSTRUCTED ON VACATION HOME SITES ON FEDERAL LANDS	XIII-55
A. Permit Conditions Relating to Vacation Home Improvements	XIII-55
1. Time Period for Construction	XIII-55
2. Approval of Plans	XIII-55
3. Approval of Clearing for Improvement and Charge for Timber Cut or Destroyed	XIII-55
4. Maintenance of Improvements and Premises to Standards of Repair, Orderliness, and Safety Acceptable to Forest Officer (or National Park Service)	XIII-56
5. Contract Clauses Covering Water and Sanitation Facilities, Utility Building, Road Maintenance	XIII-56

TABLE OF CONTENTS (Continued)

	<u>Page</u>
B. Restrictions on Improvements, Facilities, and Construction at Privately Developed Vacation Home Communities	XIII-57
C. Actual Practices of Permittees Regarding Nature of Improvements and Level of Investment in Vacation Homes on Permit Sites	XIII-58
1. Type of Improvement on Permit Site	XIII-58
2. Size of Improvement	XIII-59
3. Condition of Improvement Acquired by Purchase	XIII-59
4. Additions and Alterations of Improvements	XIII-59
5. Age of Improvement	XIII-60
6. Cost of Improvement	XIII-60
7. Financing the Cost of Improvement Homes	XIII-61
8. Plans for Major Additions Within Next 3 Years	XIII-61
9. Maintenance and Repairs	XIII-61
10. Facilities and Services	XIII-62
VIII. PERMIT CONDITIONS AND ACTUAL PRACTICES REGARDING USE AND OCCUPANCY OF VACATION HOMES	XIII-64
A. Permit Conditions Relating to Use and Occupancy	XIII-64
1. Use and Occupancy Requirements and Restrictions	XIII-64
2. Responsibilities Related to Use and Occupancy	XIII-64
B. Actual Practices of Permittees Relating to Use and Occupancy of Vacation Homes	XIII-65
1. Distance of Vacation Home from Permanent Home	XIII-65
2. Surroundings of Vacation Home Area	XIII-65
3. Seasonal Use	XIII-66
4. Rental Use and Occupancy	XIII-67
5. Personal Use and Occupancy	XIII-67
6. Total Use and Occupancy	XIII-68
7. Extent of Use and Occupancy Desired	XIII-70
8. Potential Problem Areas Based on Conditions of Occupancy	XIII-72

TABLE OF CONTENTS (Continued)

	<u>Page</u>
IX. PERMIT CONDITIONS AND ACTUAL PRACTICES REGARDING TERMINATIONS OF VACATION HOME PERMITS	XIII-74
A. Permit Conditions and Policy Provisions Regarding Termination of Vacation Home Site Permits by Federal Agencies	XIII-74
1. Terminable Permits (Forest Service)	XIII-74
2. Term Permits (Forest Service)	XIII-75
3. Term Permits (National Park Service)	XIII-75
B. Termination Conditions for Vacation Home Site Leases by State and Private Ownerships	XIII-76
1. Termination of State Leases for Vacation Homes	XIII-76
2. Termination of Private Ownership Leases	XIII-76
C. Actual Practices Regarding Terminations on Federal Lands	XIII-78
1. Number of Vacation Home Sites Terminated	XIII-78
2. Terminations Pending	XIII-79
3. Termination Policies and Practices	XIII-79
D. Problem Areas Related to Terminations	XIII-81
1. Terminations at Expiration of Term Specified in Permit	XIII-81
2. Early Terminations of Vacation Home Permits	XIII-81
E. Termination Case Histories	XIII-82
1. Case History: Lake Chelan, Wenatchee National Forest, State of Washington	XIII-82
2. Case History: Norway Beach, Chippewa National Forest, Minnesota	XIII-84
X. TERMINATION OF VACATION HOME SITES THROUGH DISPOSITION OF LAND BY LAND EXCHANGE PROGRAM	XIII-87
A. Exchange of Land	XIII-87
B. Forest Service Policy - Summer Home Tract Exchanges	XIII-87

TABLE OF CONTENTS (Continued)

	<u>Page</u>
C. Case History: Land Exchange of a Vacation Home Tract in the San Bernardino National Forest	XIII-88
1. Parcel Sizes	XIII-88
2. Duration of Use as a Vacation Home Tract	XIII-88
3. Fees Charges	XIII-88
4. Value	XIII-89
5. Advanced Notification	XIII-89
6. Permittees' Rights and Obligations after Exchange Completed	XIII-89
7. Subsequent Use of the Land	XIII-90
D. Problems of Exchange Related to Vacation Homes	XIII-90
1. From the Standpoint of the Government	XIII-90
2. From the Standpoint of the Permittee	XIII-90
3. From the Standpoint of the General Public	XIII-90
XI. DEMOGRAPHIC CHARACTERISTICS OF PERMITTEES	XIII-92
A. Size of Household	XIII-92
B. Household Composition	XIII-92
C. Age of Head of Household	XIII-93
D. Occupation of Head of Household	XIII-93
E. Education of Head of Household	XIII-94
F. Household Income	XIII-95
XII. DEMAND FOR AND SUPPLY OF VACATION HOME LAND	XIII-97
A. Growth of the Vacation or Seasonal Home Market	XIII-97
B. Factors Affecting Demand	XIII-99
C. Prospects for the Future	XIII-101
D. Demand for Vacation Home Sites on Federal Lands	XIII-102

TABLE OF CONTENTS (Continued)

	<u>Page</u>
E. Demand Indicated on Private Lands	XIII-102
1. Pennsylvania	XIII-103
2. Wisconsin	XIII-103
3. Washington	XIII-103
4. California	XIII-103
F. Supply of Land Oriented to Vacation Home Use	XIII-104
1. Relationship Between Land and Population	XIII-104
2. Lands Available for Recreation-Oriented Purposes	XIII-105
3. Supply from Federal Sources	XIII-106
G. Extent Supply Satisfied Demand	XIII-110
 CHAPTER XIV -- OTHER USES	 XIV-1
I. RAILROAD RIGHT-OF-WAY USE	XIV-3
A. Historical Background	XIV-3
B. Occupants to Whom the United States Conveyed Its Interest, 1953 to 1967	XIV-7
C. Railroad Rights-of-Way on Which Property Rights Are in Question	XIV-8
D. Uses Being Made of Railroad Rights-of-Way	XIV-13
E. Government Cloud on Conveyed Right-of-Way	XIV-15
II. MILITARY AND OTHER FEDERAL GOVERNMENT USE OF PUBLIC LAND	XIV-16
A. Use of Section 10 Lands by Noncontrolling Federal Agencies	XIV-17
1. Limitations of Data	XIV-17
2. Federal Government Use of Section 10 Lands by Noncontrolling Agency	XIV-18
3. Acreage by Occupancy Use of Section 10 Lands Under Use by Noncontrolling Agencies	XIV-20
4. Acreage by Instrument Authorizing Use of Section 10 Lands by Noncontrolling Agencies	XIV-20
5. Acres Under Control of Forest Service Used by Other Federal Agencies	XIV-20

TABLE OF CONTENTS (Continued)

	<u>Page</u>
B. Use of Authorizing Instruments as an Alternative to Withdrawal	XIV-24
1. Resource Management of the Federal Agencies	XIV-24
2. Criteria and Rationale for Selecting Authorization Instruments	XIV-25
C. Natural Resource Objectives	XIV-29
D. Operation of the Present System by Case Example	XIV-29
1. Transportation Uses	XIV-30
2. Utility Transmission	XIV-31
3. Water Transmission	XIV-32
4. Reservoir Flowage	XIV-34
5. Education, Science and Research	XIV-35
6. Military Use	XIV-36
E. Effectiveness of Present System	XIV-37
III. NATURAL AREAS	XIV-39
A. Definition of Natural Areas	XIV-39
B. Character of Natural Area Systems	XIV-41
C. The Three Natural Area Systems	XIV-42
1. The Minimum System	XIV-42
2. The Medium System	XIV-43
3. The Maximum System	XIV-44
D. Criteria For Formation of New Policy	XIV-46
1. Ranking of Natural Types	XIV-46
2. Individual Site Selection	XIV-47
3. Selection of a Natural Area System	XIV-48
E. Acreage in Natural Areas in the United States	XIV-48
1. Natural Areas Established on Section 10 Lands From 1958 to 1967	XIV-49
F. Assessment of Additional Acreage Required for a Natural Area System	XIV-51
1. Section 10 Lands	XIV-52
2. Extent to Which National Parks, Wilderness Areas, and Other Appropriate Lands Could Be Used as Natural Areas	XIV-53

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
X-1	Major uses of land in the contiguous United States, 1940-1964	X-4
X-2	Summary of Section 10 acreage disposed, by use and location, for all agencies combined, annually from 1958 to 1967	X-2
X-3	Laws governing Section 10 land disposed, 1958-1967	X-11
X-4	Summary of acreage prices for disposed lands by occupancy use, state, and ownership	X-19
X-5	Total acreage in Department of Defense Outgrants by agency and use	X-23
X-6	Summary of acreage in occupancy use on Section 10 lands, retained by Department of the Interior Agencies by use and location	X-24
X-7	Summary of acreage in occupancy use on Section 10 lands, retained by the Forest Service, by use and location, for 1959, 1961, 1963, and 1965	X-25
X-8	Summary of acreage in occupancy use on Section 10 lands retained by the Department of Agriculture and the Department of the Interior by use for 1959, 1961, 1963, and 1965	X-27
XI-1	General standards for selected recreation areas	XI-8
XI-2	Land uses - acres/100 persons	XI-10
XI-3	Bureau of Land Management sales of Section 10 land in Alamogordo, New Mexico, 1957-1968	XI-14
XI-4	National Forest exchanges to date, Flagstaff, Arizona	XI-22
XI-5	National Forest exchanges in process, Flagstaff, Arizona	XI-23
XI-6	National Forest Areas set up for community use, Flagstaff, Arizona	XI-23

LIST OF TABLES (Continued)

<u>Table</u>	<u>Title</u>	<u>Page</u>
XI-7	Recent sales of public land in Reno/Sparks, 1959-1969	XI-29
XI-8	Actual use of land in Reno and Sparks, Nevada	XI-30
XI-9	Wasatch Forest permits	XI-34
XI-10	Salt Lake County land use, 1960 and 1967	XI-37
XI-11	Disposals of Section 10 land for urban occupancy by Bureau of Land Management indicating applicable law, year, and geographic area, 1953-1967	XI-43
XI-12	Section 10 land disposed for urban occupancy by Forest Service indicating applicable law and acres by geographic area and year, 1958-1967	XI-46
XII-1	Distribution of planned communities by projected acreage and population, Spring 1968	XII-5
XII-2	New communities, 1959-1969	XII-6
XIII-1	Status of vacation home sites on Federal land, 1967	XIII-6
XIII-2	Estimated premium paid for a vacation home to procure a site permit, Snoqualmie National Forest, 1962-1968	XIII-23
XIII-3A	Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of Pennsylvania	XIII-31
XIII-3B	Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of Wisconsin	XIII-32
XIII-3C	Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of Washington	XIII-33
XIII-3D	Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of California	XIII-34
XIII-4	Examples of annual fees on vacation home sites in National Forests	XIII-38

LIST OF TABLES (Continued)

<u>Table</u>	<u>Title</u>	<u>Page</u>
XIII-5A	History of permit fees as reported by permittees for vacation home sites in National Forests	XIII-39
XIII-5B	Highest rental fees reported by vacation home permittees for selected intervals and years, 1935-1969	XIII-40
XIII-6	Permit fees in National Forests by census region	XIII-41
XIII-7	Permit fees by states - 1968	XIII-41
XIII-8	Permittees' evaluation of selling prices for comparable private parcels	XIII-43
XIII-9	Combined total of permit fees and taxes on land and improvements	XIII-45
XIII-10A	Comparison of charges for occupancy of vacation home site parcels under varying ownerships, State of Pennsylvania	XIII-50
XIII-10B	Comparison of charges for occupancy of vacation home site parcels under varying ownerships, State of Wisconsin	XIII-51
XIII-10C	Comparison of charges for occupancy of vacation home site parcels under varying ownerships, State of Washington	XIII-52
XIII-10D	Comparison of charges for occupancy of vacation home site parcels under varying ownerships, State of California	XIII-53
XIII-11	Distance of vacation home from permanent residence	XIII-66
XIII-12	Use of vacation home by month during 1968	XIII-67
XIII-13	Usage of vacation homes by Census Region, 1968	XIII-69
XIII-14	Usage of vacation homes by state in the West Census Region, 1968	XIII-70
XIII-15	Size of households holding vacation home permits	XIII-92

LIST OF TABLES (Continued)

<u>Table</u>	<u>Title</u>	<u>Page</u>
XIII-16	Age of permittee heads of household	XIII-93
XIII-17	Occupation of permittees	XIII-94
XIII-18	Educational attainment of permittees	XIII-95
XIII-19	Income levels of permittees	XIII-96
XIII-20	Growth trends in seasonal and second homes, United States and Census Regions, 1950-1960	XIII-98
XIII-21	Distribution of vacation home special use permits in National Forests, 1968	XIII-107
XIII-22	Comparison of population distribution with vacation homes distribution by Census Regions	XIII-109
XIV-1	Bills introduced for validating conveyance of land by railroad companies within railroad rights-of-way, 1953-1967	XIV-9
XIV-2	Laws validating conveyances of land by railroad companies within railroad rights-of-way, 1953-1967	XIV-10
XIV-3	Federal Government use of Section 10 lands by noncontrolling agency, 1958-1967	XIV-19
XIV-4	Section 10 lands used by noncontrolling Federal agencies, by occupancy use, 1958-1967	XIV-21
XIV-5	Section 10 lands used by noncontrolling Federal agencies, by authorizing instrument, 1958-1967	XIV-22
XIV-6	Forest Service Section 10 lands used by other Federal agencies under Memorandum of Understanding, 1957-1965	XIV-23
XIV-7	Summary of Section 10 acreage in natural areas, by agency and type	XIV-50

LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	Forest Service Regions	XIII-7

PART 3

RESOURCE BASE AND ITS USES

Having examined the existing legal system of laws, regulations, and policies that provide for and control the disposal and use of public lands, Chapter X describes how much of the resource base is being utilized for various occupancy purposes. First, the trends and patterns in the amount of acreage devoted to the occupancy uses under all ownerships throughout the contiguous United States are examined. Then, the trends and patterns in the acreages of disposed and retained Section 10 lands allocated to the various occupancy uses are investigated. Here, the prices for disposals as well as the charges, tenure and tenure conditions for retained lands are compared to similar lands or use privileges in other ownerships.

CHAPTER X

RECENT AND PRESENT PATTERNS OF LAND USE

CHAPTER X

RECENT AND PRESENT PATTERNS OF LAND USE

I. RECENT AND PRESENT PATTERNS OF LAND USE IN THE CONTIGUOUS UNITED STATES (ALL OWNERSHIPS)

Research of secondary sources indicated that published inventories detailing the amount of acreage allocated to the various occupancy uses were either unavailable or incomplete. In an effort to obtain such data, a land use inventory questionnaire was developed and sent to the Governor's Representatives of the Public Land Law Review Commission in each of the 48 states as well as to a number of selected Federal agencies. 1/

Of the 25 states that responded, only Delaware, Ohio and South Dakota were able to supply a land use inventory detailing the various occupancy uses. These data, however, did not cover the time period specified. While the remaining 22 states that responded were able to furnish information on urban uses for specific communities and towns, the overall response was insufficient upon which to relate any meaningful trends at the state level.

Review of data obtained from the various Federal agencies also indicated there was no complete inventory of land uses in the United States by the various occupancy uses. The most applicable listing was that compiled by the U.S. Department of Agriculture which includes all land ownerships in the 48 contiguous states. This information is shown in Table X-1.

The occupancy uses reported in Table X-1 differ from those prescribed for this study in that many are combined. Also, data are not reported for the desired time span. However, it may be seen that of the occupancy uses considered in this study, urban uses (residential, commercial, light and heavy industrial, and utility type transmission lines) accounted for the greatest number of acres (29.2 million in 1964) and increased by almost 60 percent since 1950. Rural transportation (especially highways and roads) accounted for the next largest amount of acreage (25.8 million in 1964). Although there has not been a large increase in this category (only 6.6 percent between 1940 and 1964) the trend has been steadily upward. The third largest category was National Defense (including military installations - 21.0 million acres in 1964). The amount of land allocated to this use, however, has remained relatively stable since 1950.

Table X-1. Major uses of land in the contiguous United States, 1940-1964.

(acreage in millions)

Land Use	1940	% of Total	1950	% of Total	1954	% of Total	1959	% of Total	1964	% of Total
AGRICULTURE/FOREST	1,726	90.60	1,715	90.07	1,713	89.97	1,702	89.40	1,692.1	89.08
Cropland	468	24.57	478	25.10	465	24.42	458	24.06	443.8	23.36
In Use	367	19.27	375	19.69	380	19.96	359	18.86	334.8	17.62
Soil Improvement/Idle	33	1.73	34	1.79	19	1.00	33	1.73	51.6	2.72
Pasture in Farms	68	3.57	69	3.62	66	3.46	66	3.47	57.4	3.02
Grassland (Pasture/Grazing)	650	34.12	631	33.14	633	33.25	630	33.09	636.5	33.51
Forest/Woodland	608	31.91	606	31.83	615	32.30	614	32.25	611.8	32.21
Forest in Pasture	343	18.00	320	16.81	301	15.81	243	12.76	n.r.	-
Other Forest	265	13.91	286	15.02	314	16.49	371	19.49	n.r.	-
SPECIAL USES	75	3.94	105	5.52	110.0	5.78	124.2	6.52	144.5	7.61
Urban ^a	n.r.	-	18.3	0.96	18.6	0.98	27.1	1.42	29.2	1.54
Rural Transportation	n.r.	-	24.2	1.27	24.3	1.28	25.1	1.32	25.8	1.36
Highways/Roads	n.r.	-	>22.9	1.20	19.6	1.03	20.4	1.07	n.r.	-
Railroads	n.r.	-	-	-	3.4	0.18	3.4	0.18	n.r.	-
Airports	n.r.	-	1.3	0.07	1.3	0.07	1.4	0.07	n.r.	-
Other Rural	n.r.	-	11.0	0.58	11.0	0.58	10.1	0.53	9.2	0.48
Farmsteads	n.r.	-	10.3	0.54	9.0	0.47	8.0	0.42	n.r.	-
Farm Roads/Lanes	n.r.	-	0.7	0.04	2.0	0.11	2.1	0.11	n.r.	-
Parks	n.r.	-	18.8	0.99	18.7	0.98	22.5	1.18	39.3	2.07
National	n.r.	-	14.1	0.74	14.0	0.73	17.0	0.89	n.r.	-
State	n.r.	-	4.7	0.25	4.7	0.25	5.5	0.29	n.r.	-
Wildlife	n.r.	-	8.9	0.47	8.8	0.46	9.3	0.49	10.3	0.54
Federal	n.r.	-	n.r.	-	3.9	0.20	3.6	0.19	n.r.	-
State	n.r.	-	n.r.	-	4.9	0.26	5.7	0.30	n.r.	-
National Defense ^b	n.r.	-	21.5	1.13	21.5	1.13	22.2	1.17	21.0	1.11
Flood Control ^c	n.r.	-	1.0	0.05	3.9	0.20	4.8	0.25	6.2	0.33
Atomic Energy/Fed. Ind. ^d	n.r.	-	n.r.	-	2.0	0.11	1.9	0.10	2.1	0.11
State Institutional ^e	n.r.	-	1.3	0.07	1.2	0.06	1.2	0.06	1.3	0.07
MISCELLANEOUS (Tundra, Desert, Wasteland, Marshes, Etc.)	104	5.46	84	4.41	81	4.25	77.6	4.08	63.0	3.31
Total ^f	1,905	100.0	1,904	100.0	1,904	100.0	1,903.8	100.0	1,899.6	100.0

^a Includes: urban transportation, utilities, communications, residential, light industrial/commercial, heavy industrial, and community related uses.

^b Includes military use.

^c Includes water transmission, reservoirs and reservoir flowage areas; approximately 420,000 acres in reservoirs reported for 1964.

^d Includes other Federal Government use.

^e Includes education, science and research, and other non-Federal Government uses.

^f Variation in total acreage due to changes in reporting methods.

Source: U. S. Department of Agriculture, Major Uses of Land in the United States, Agricultural Bulletins for 1940, 1950, 1954, 1959, and 1964.

In summarizing recent land use trends, it is evident that there has been a slow shift from agricultural/forest and miscellaneous (tundra, desert, wasteland, etc.) lands to more intensive uses. Further, while urban land uses from 1950 to 1959 increased 48 percent, the urban population increased only 29 percent, indicating proportionally higher amounts of land area have been utilized to accommodate the needs of the growing population.

II. RECENT AND PRESENT PATTERNS OF DISPOSED SECTION 10 LANDS

Data relating to disposed Section 10 lands allocated to the various occupancy uses were obtained from Federal agencies through the Public Land Law Review Commission. Information pertaining to current disposal prices for land was also furnished for selected states (California, Montana, Oregon and Pennsylvania).

To provide comparative data relative to policies and practices governing disposals of lands owned by state agencies and large and small private land owners in each of these four states, field interviews were undertaken, followed up by personal correspondence. Initial contacts were made with the Governor's Representatives of the Public Land Law Review Commission who in turn supplied leads for representative data at the state and private levels. At least ten individual interviews were conducted in each of the states studied. During these interviews, information was also obtained for case studies regarding problems pursuant to the present Federal system of managing and administering Section 10 lands.

It must be recognized that the analyses that follow are based upon the best available information that could be obtained during the time allotted for this study. There are certain limitations, as some of the information requested of the Federal agencies by the Commission simply was not available. For example, records of the Department of Defense agencies, holders of considerable acreage in Section 10 lands, do not identify the use made of disposed lands. Consequently, they were unable to supply the Commission with disposal data. In other instances the data supplied were incomplete, unusable in the form supplied, inconsistent or received too late for incorporation into this study. Nevertheless, the data presented are the best available and include only the usable information received by the Commission prior to May 14, 1969.

It should also be noted that the occupancy use referred to in each instance below is that for which the disposal was made. Further, the information presented excludes the categories of military and other Federal Government uses as no disposals can be made for these uses.

A. Acreage of Disposed Lands by Occupancy Use: 1958-1967

Table X-2 summarizes the number of acres disposed annually by all reporting agencies for identifiable uses for the period 1958-1967.

Table X-2. Summary of Section 10 acreage disposed, by use^a and location, for all agencies combined, annually from 1958 to 1967.

Occupancy Use	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	Total 1958-1967
Transportation											
Western U.S.	101	360	85	320	1,178	1,175	49	791	---	1,486	5,545
Eastern U.S.	---	---	222	---	---	---	185	---	---	135	542
Water Transmission											
Western U.S.	---	---	---	---	---	---	64	60	---	---	124
Eastern U.S.	---	---	---	---	---	---	---	---	---	---	---
Residential											
Western U.S.	40,156	56,547	70,107	39,387	25,532	26,810	21,269	21,400	11,264	7,615	320,087
Eastern U.S.	19	10	11	---	42	39	130	21	577	403	1,252
Lt. Indus. /Commercial											
Western U.S.	85,818	7,229	5,765	1,436	2,033	1,126	22,430	1,990	3,400	5,340	136,567
Eastern U.S.	---	---	---	---	---	---	---	---	---	10	10
Heavy Industrial											
Western U.S.	2,032	108	421	24	2,221	217	380	2,901	1,393	2,263	11,960
Eastern U.S.	---	---	---	---	---	---	---	---	---	---	---
Community											
Western U.S.	819	1,861	1,808	2,628	1,383	2,997	6,821	10,667	670	624	30,278
Eastern U.S.	---	---	---	---	80	35	---	---	---	92	207
Educ. /Sci. /Research											
Western U.S.	362	1,214	1,215	571	301	530	1,806	1,550	1,072	2,334	10,955
Eastern U.S.	626	633	1,279	120	---	20	---	---	---	---	2,678
Other non-Fed. Gov't.											
Western U.S.	---	320	1,782	955	641	4,087	80	4,330	3,466	6,733	22,394
Eastern U.S.	---	---	---	---	---	---	---	---	---	---	---
Total, All Uses											
Western U.S.	129,288	67,639	81,183	45,321	33,289	36,942	52,899	43,689	21,265	26,395	537,910
Eastern U.S.	645	643	1,512	120	122	94	315	21	577	640	4,689
Total	129,933	68,282	82,695	45,441	33,411	37,036	53,214	43,710	21,842	27,035	542,599

^a There were no Section 10 disposals for utility, communication, reservoir flowage, military or other Federal Government uses.

Source: Federal Agencies as supplied through the Public Land Law Review Commission.

This summary is based upon aggregate acreages reported by each agency for individual occupancies which are presented in Appendix A (Tables 1 through 10).

As shown in Table X-2, a total of 542,599 acres were disposed of for various occupancy uses during the period 1958-1967. The occupancy use for which the most acreage was disposed of was residential (321,339 acres). Light Industrial/Commercial use accounted for the next highest volume of disposals (136,577 acres). These two categories together constituted nearly 85 percent of all disposals made between 1958 and 1967. Total disposals for the other individual occupancies range from 6,087 acres (for transportation) to 30,485 acres (for community uses) over the 10-year period.

Disposals of lands for water transmission use were minimal and occurred only in 1964 and 1965. There were no disposals for utility, communication, or reservoir flowage purposes.

B. Acreage of Disposed Section 10 Lands by Geographic Area: 1958-1967

As may also be seen in Table X-2, the bulk of disposals for all occupancy uses (99 percent, or 537,910 acres) occurred in the Western States. ^{2/} The majority of Western States disposals (60 percent) were made for residential uses (320,087 acres). Disposals for light industrial/commercial represented about 25 percent (136,567 acres).

Less than 5,000 acres of the 542,599 acres were disposed of in the Eastern States. ^{3/} Further, these disposals were for only five of the occupancy uses studied: transportation, residential, light industrial/commercial, community, and education/science/research. Of these uses, only disposals for education/science/research (2,678 acres) and residential (1,252 acres) were of any significance.

C. Trends in Disposed Section 10 Acreage: 1958-1967

From the data in Table X-2, it is apparent that the amounts of Section 10 acreage disposed of each year for the occupancy uses studied have varied considerably. Consequently, no meaningful or valid trends can be discerned. In very general terms, it appears that disposals for the studied uses are declining. Disposals for other non-Federal Government use, however, seem to be increasing.

D. Disposed Section 10 Lands by Agency: 1958-1967

Disposals for individual occupancy uses by various agencies discussed in the following paragraphs are related to the data shown in Appendix A (Tables 1 through 10): The agencies for which usable disposal information by occupancy use was available were: Bureau of Reclamation, National Park Service, Bureau of Land Management and Forest Service. It should be noted that most Forest Service disposals were made through exchanges for the stated purpose of "community expansion." As defined by the Forest Service, "community expansion" includes urban transportation, light industrial/commercial, community and particularly residential uses. Since a specific use breakdown was not available from this agency, "Community expansion" disposals were treated as residential use in this analysis.

1. Transportation

Disposals by the Bureau of Land Management (3,643 acres) represented nearly 60 percent of the total 6,087 acres disposed for this use. Although there were only occasional instances of Forest Service disposals, this agency accounted for 37 percent of all disposals between 1958 and 1967. The remaining acreage disposed for transportation purposes was by the National Park Service in 1964 (185 acres); Bureau of Reclamation had no data available for this use.

2. Water Transmission

The only disposals for this use were by the Bureau of Land Management in 1964 and 1965, totaling 124 acres.

3. Residential

As noted previously, this use accounted for 321,339 acres of the reported disposals (approximately 60 percent). The majority of these disposals for residential use (almost 90 percent) were made by the Bureau of Land Management. The Forest Service disposed of 32,157 acres for the 1958-1967 period. Most of this acreage was disposed in the western United States. Bureau of Reclamation disposed of only 193 acres for this use. There were no disposals reported by the National Park Service for this use.

4. Light Industrial/Commercial

This use ranked second of all those for which disposals were made, accounting for 136,577 acres over the 10-year period. The Bureau of Land Management made all of these disposals, with the exception of 36 acres disposed by the National Park Service and 7 acres by the Bureau of Reclamation. The Forest Service reported no acreage disposed for this specific purpose.

5. Heavy Industrial

The nearly 12,000 acres disposed for this use was entirely of Bureau of Land Management lands.

6. Community

This was the third most frequent use for which disposals were made. Aside from 21 acres disposed by the Bureau of Reclamation, all other disposals (30,464 acres) were made by the Bureau of Land Management. For reasons previously stated, no Forest Service data was available for this specific use.

7. Education/Science/Research

Only the Bureau of Land Management disposed of lands for these uses between 1958 and 1967. A total of 13,633 acres was disposed during this 10-year period, of which 2,678 acres were in the eastern United States.

8. Other Non-Federal Government

Between 1958 and 1967 the Bureau of Land Management disposed of 19,817 acres to non-Federal Government entities for purposes which could not be identified with the aforementioned uses. An additional 2,577 acres were disposed of by the National Park Service. Neither the Bureau of Reclamation nor the Forest Service reported disposals of any lands during this time for state or local government use which was not identified with a particular use.

E. Disposals of Section 10 Lands by Applicable Law: 1958-1967

From the usable data supplied to the Commission (see Appendix A, Tables 11 through 45), 34 ⁴/₁ laws were referenced as governing specific disposals between 1958 and 1967. A summary listing of these laws is presented in Table X-3.

Table X-3. Laws governing Section 10 land disposed, 1958-1967.

Law No.	Description	Citation
1	Small Tract Act	June 1, 1938; 52 STAT. 609; 43 U.S.C. 682b
2	Recreation and Public Purposes Act	June 14, 1926; 44 STAT. 741; 43 U.S.C. 869-1, -2, -4
3	Townsite Acts	a) April 16, 1906; RS 2387-2389; 43 U.S.C. 562 b) March 3, 1863; 12 STAT. 754; 43 U.S.C. 711-712 c) Act of March 3, 1905; 33 STAT. 1069 d) Reclamation: (1) Act of April 16, 1906; 34 STAT. 116; (2) Act of June 27, 1906; P.L. 59-308; 34 STAT. 519
4	Taylor Grazing Act, Sec. 8	June 28, 1934; RS 2455, Px and Sx Sec. 8; 43 U.S.C. 315g (b-d)
5	Public Land Sale Act of 1964	September 19, 1964; P.L. 88-608; 78 STAT. 988; 43 U.S.C. 1421-1427
6	Color of Title Act	December 22, 1928; 43 U.S.C. 1068, 1068b
7	Federal Airport Act	May 13, 1946; 70 STAT. 170; 49 U.S.C. 1115b
8	State Indemnity and Selection Act	June 20, 1910; RS 2478 (Arizona and New Mexico Enabling Act)

Table X-3. Continued.

Law No.	Description	Citation
9	Mining Claims Occupancy Act	October 23, 1962; P.L. 87-851; 76 STAT. 1127; 30 U.S.C. 705, 707
10 ^a	General Mining Laws	RS 2325 and 2329; 30 U.S.C. 29 and 35 (also 30 U.S.C. 22-24, 26-30, 33-35, 39-42, 47)
11	Cemetery Act	March 1, 1907; 34 STAT. 1052; 43 U.S.C. 682
12	Exchange of Land In Consolidating National Forests	March 22, 1922; 42 STAT. 465; 16 U.S.C. 485
13	Public Law 591	March 3, 1925; P.L. 591; 43 STAT. 1215
14	Special Forest Exchange	October 23, 1962; 76 STAT. 1157; 16 U.S.C. 555a and b
15	Soil Conservation	July 22, 1937; 50 STAT. 525; 7 U.S.C. 1010(c and d), 1012 and 1013
16 ^b	Wildlife Refuges	June 15, 1935; 49 STAT. 381; 16 U.S.C. 715d-1 and -2, 715e and e-1 October 15, 1966; 80 STAT. 926; 16 U.S.C. 668dd; 49 STAT. 381
17 ^b	Wildlife Conservation	May 19, 1948; 62 STAT. 240; 16 U.S.C. 667(b)

Table X-3. Continued.

Law No.	Description	Citation
18	Theodore Roosevelt National Memorial Park	March 24, 1956; 70 STAT. 55, 56; 16 U.S.C. 241c-e 70 STAT. 57, 16 U.S.C. 241f Act of April 25, 1947; 61 STAT. 54; 16 U.S.C. 243 Act of June 12, 1948; 62 STAT. 384; 16 U.S.C. 241b
19	Rocky Mountain National Park	August 17, 1961; 75 STAT. 383; 16 U.S.C. 192b 6-8
20	Carlsbad Cavern National Park	December 30, 1963; 77 STAT. 818; 16 U.S.C. 407e-h
21	Estes Park - Roosevelt National Forest	July 28, 1958; P.L. 85-567; 72 STAT. 426
22	Public Law 87-175	August 30, 1961; P.L. 87-175; 75 STAT. 410
23	Private Law 88-350	October 8, 1964; Private Law 88-350; 78 STAT. 1197
24	Public Law 85-868	September 2, 1953; P.L. 85-868; 72 STAT. ____
25	Pt. Reyes National Seashore Act	September 13, 1962; 16 U.S.C. 459c-2 (a and c)
26 ^c	Public Law 666	August 27, 1954; P.L. 666; 68 STAT. 864

Table X-3. Continued

Law No.	Description	Citation
27 ^c	Public Law 88-35	May 29, 1963; P.L. 88-35; 77 STAT. 53
28	Public Law 522	May 14, 1956; P.L. 522; 70 STAT. 156
29	Public Law 88-73	July 22, 1963; P.L. 88-73; 77 STAT. 88
30 ^b	Atlantic & Pacific R.R. Co. Grant	July 27, 1866
31	Transportation Act of 1940	September 18, 1940; 54 STAT. 898-954
32 ^b	Federal Property & Administrative Service Act	June 30, 1949; 63 STAT. 377; Ch. 10 of 40 U.S.C. 471 et seq.
33 ^b	Withdrawals	May 25, 1952; Exec. Order No. 10355; 17 F.R. 4831; 43 U.S.C. 141
34	Land For Schools or Missions	June 6, 1900; 31 STAT. 330 48 U.S.C. 356
35	Private Law 88-252	July 7, 1964; Private Law 88-252; 78 STAT. 1156
36	Private Law 87-183	September 6, 1961; Private Law 87-183; 75 STAT. 912
37	Private Law 854	August 27, 1954; Private Law 854; 68 STAT. A223
38 ^b	Private Law 87-447	July 10, 1962; Private Law 87-447; 76 STAT. 1321

Table X-3. Continued.

Law No.	Description	Citation
39	Oklahoma Homestead Act	May 2, 1890; 26 STAT. 91; 43 U.S.C. 1091-1097
40	Valentine Scrip	April 5, 1872; 17 STAT. 649
41	Public Law 84-433	April 22, 1960; P.L. 84-433; 74 STAT. 74
<p>^aData supplied under this law was not usable because the reported occupancy use was not applicable to this study.</p> <p>^bData supplied under these laws was not usable because the occupancy use was unknown.</p> <p>^cData supplied under these laws was not usable because the reported years were not applicable to this study.</p> <p>Source: Federal Agencies as supplied by the Public Land Law Review Commission.</p>		

Only three of these laws were used by more than one agency. These were the Townsite Acts (Law 3 of Table X-3) used by both Bureau of Reclamation and the Bureau of Land Management, the Federal Airport Act (Law 7) and the Exchange Acts for Consolidating National Forests (Law 12). Both these latter laws were used by the Bureau of Land Management and the Forest Service. Other Forest Service disposals were made under Laws 12, 13, 21, and 22, which were exchanges for consolidating forest lands, and the Soil Conservation Act (Law 15). Disposals by the National Park Service were governed by Laws 18, 19, and 20, which were exchanges for consolidating national park holdings.

Disposals by the Bureau of Reclamation were made under various Townsite Acts (either Law 3 or Law 24). All remaining laws were used exclusively for disposals by the Bureau of Land Management, with the most frequently used laws being the Small Tract Act (Law 1) and the Taylor Grazing Act (Law 4).

1. Bureau of Reclamation

A total of 221 acres was disposed of by the Bureau of Reclamation between 1958 and 1967. Of these, 200 acres were disposed in an exchange with the Navajo Indian Tribe (Law 24) for lands to be used for townsites (either residential or light industrial/commercial use). The remaining 21 acres were disposed under the Reclamation Townsite Laws (Law 3d of Table X-3) for community use.

2. National Park Service

Three laws (Laws 18, 19, and 20) governed the nearly 2,800 acres disposed by the National Park Service during the 1958-1967 period. These were all exchanges for the purpose of consolidating holdings for the following national parks: Theodore Roosevelt National Memorial Park in North Dakota (185 acres); Rocky Mountain National Park in Colorado (36 acres); and Carlsbad Cavern National Park in New Mexico (2,577 acres). These lands were for transportation, light industrial/commercial and unidentified state government occupancy use, respectively.

3. Bureau of Land Management

As noted earlier, the Bureau of Land Management is responsible for the bulk of disposal transactions. The Taylor Grazing Act, Section 8 (Law 4) provided authority for disposal of 132,573 acres of public

land (which were predominantly for residential use) and an additional 108,502 acres for private exchange (all of which was for heavy industrial occupancy). The combined total for this Act is 241,075 acres, which represents nearly 50 percent of Bureau of Land Management disposals between 1958 and 1967. Under the Small Tract Act (Law 1), disposals for the same period were 142,308 acres, mostly for residential use (138,039 acres), with the balance for industrial purposes. The Recreation and Public Purposes Act (Law 2) provided authority for disposal of nearly 48,000 additional acres, more than half of which was for community use, and the balance distributed between unidentified non-Federal Government use, education/science/research, and residential uses.

All other laws account for only slightly more than 20 percent of total Bureau of Land Management disposals. Laws 8, 12, and 25 were used primarily in disposals for residential use (48,590 of 51,505 acres), while of the disposals under Laws 23 and 41 (8,144 acres total), 71 percent (5,782 acres) were for light industrial/commercial purposes. All disposals under Laws 28 and 29 were for non-Federal Government occupancy (combined total of 8,077 acres); Law 7 was used for the only significant instance of transportation use (3,523 acres). The balance of the laws (Laws 3, 5, 6, 9, 11, 31, 34, 35, 36, 37, 39, and 40) were utilized for disposals ranging from 4 to 570 acres for each law. These disposals, again, were mostly intended for residential and industrial occupancies, with minimal acreages for transportation, water transmission and community facilities.

4. Forest Service

Of the Forest Service acreage disposed between 1958 and 1967, most was for the stated purpose of "community expansion." Under Law 12, which is for Exchange of Land in Consolidating National Forests, 31,124 acres were disposed for this purpose. An additional 848 acres were disposed under similar exchange laws, including Laws 13, 14, 21, and 22, also for community expansion. Still another 185 acres were disposed for the same purposes under the Soil Conservation Act (Law 15) which provides for sale or exchange of forest lands. The remaining Forest Service disposals were under provisions of the Federal Airport Act (Law 7); this law accounted for 2,259 acres disposed between 1958 and 1967, all for transportation use.

F. Prices for Disposed Lands

Numerous variables affect pricing; type of land, physical features, improvements, access, existing and proposed uses of adjacent

developments, and above all, location. Information on Federal pricing was supplied by individual agencies to the Commission. However, these agencies were unable to indicate the locations of their disposals and it was impossible to make comparisons of disposal prices. Consequently, information at the state and private ownership levels could only be obtained for specific examples. In addition, since examples of private disposals did not provide sufficient information to discriminate between pricing characteristics of large landowners and small landowners, these two categories were combined in this report.

In the absence of data giving specific locations, only a comparison of pricing policy could be made to determine whether the Federal Government is receiving adequate compensation for disposed Section 10 lands. Consequently only a comparison of prices received and pricing policy could be made with state and private landowners in California, Montana and Oregon. No disposal data on Section 10 lands in Pennsylvania was available, and therefore, no comparison with state and private disposals could be made. Absence of data for several occupancy uses was due to two factors, 1) information was too general to be included in a tabular analysis, and 2) the pricing examples which were supplied were not current.

Appendix A (Table 46) presents pricing data for disposed lands, to the extent available, for Federal, state and private ownership levels for each reported occupancy use in California, Montana and Oregon. These data summarized in Table X-4 and presented in order to emphasize the great variability in land prices for each use. The following discussion provides the pricing policy for Federal, state and private landowners in California, Montana and Oregon.

1. Federal Agencies

Although the Federal data did not reflect pricing policy, existing laws and regulations stipulate that disposals to private individuals or groups must be made at fair market value regardless of occupancy use. Proposed occupancy use of the disposed land does not affect price except for disposals under the Recreation and Public Purposes Act, Townsite Acts, Color of Title Act, Mining Claims Occupancy Act, General Mining Laws, whereby land may be disposed of at less than fair market value to public bodies for public uses. These acts, however, only pertain to the Bureau of Land Management lands. No disposals at below market rates by the Forest Service are authorized.

Whether a disposal for other than public purposes is made by sale or exchange, variance in price is most likely a function of locational

Table X-4. Summary of acreage prices for disposed lands by occupancy use^a, state^b, and ownership.

Use	State ^a	Ownership		
		Federal	State	Private
Transportation	California	--	\$1,000	--
	Oregon	--	\$300-\$1,875	--
Utilities	California	--	\$2,190	--
Residential	California	\$400-\$4,133	\$290-\$37,338	\$5,000-\$31,544
	Oregon	\$155-\$296	--	\$3,484-\$26,136
	Montana	\$500-\$1,200	\$25-FMV ^c	\$30-\$4,000
Light Industrial and Commercial	California	\$150	\$19,250-\$33,277	\$28,000-\$56,600
	Oregon	--	\$33,529	\$200
	Montana	--	--	\$1,000-\$90,000
Heavy Industrial	Oregon	\$41	--	--
Community	California	\$400-\$2,000	\$1,950	FMV ^c (\$20,000)
Education, Science and Research	California	\$150	FMV (\$152,500)	FMV ^c (\$150,000)
	Oregon	--	--	No Charge
	Montana	\$2.50	\$8.50-\$11	\$4-\$220
Other Non-Federal Government	California	--	\$11,500-\$32,662	--
	Montana	--	\$50	\$5-\$1,000

^aNo data was available on Section 10 disposals for communications, water transmission, reservoir flowage, military and other Federal Government uses, therefore no comparable state and private data was obtained.

^bNo data was available on Section 10 disposals in Pennsylvania, therefore no comparable state and private data was obtained.

^cFair market value.

Source: Appendix A (Table A-46).

variations or differences in appraisal techniques. It would appear that the higher rates indicated in Table X-4 reflect site advantages in terms of location, amenities, availability of utilities and access rather than variance in pricing policy.

2. State Agencies

In general, prices for lands disposed by state agencies in California, Montana and Oregon are also based on fair market value. Lands may be disposed of by public auction, sealed bid or exchange. The exchange method is normally used when dealing with another governmental entity.

There are some policy differences within states. For example, the California State Highway Commission imposes use restrictions on some land disposals. The Oregon Highway Department may sell surplus land at 50 percent of fair market value if the purchase is by a state political subdivision. This is somewhat analagous to provisions of the Recreation and Public Purposes Act except that the \$2.50 per acre price under this act could be considerably lower than 50 percent of fair market value. In Montana the State Lands Bureau under authority of the State Enabling Act may sell land at a minimum of \$5 per acre at public auction. Presumably such disposals can be made to private individuals. The State Lands Bureau, however, prefers to make exchanges or retain the land and convey an occupancy right in the form of a lease, permit or right-of-way. In both California and Oregon, purchase preference is given to other state agencies before the land is made available for public disposal.

3. Private Landowners

In all three states, California, Montana and Oregon, pricing of private land was based on fair market value. Actual price differences were based on size of parcel, location and amenities.

4. Pricing by Occupancy Use

At all levels of ownership in California, Montana and Oregon, differences in price are not a function of occupancy use except as this would normally affect fair market value. As noted previously, land disposed for public uses by the Bureau of Land Management (under the Recreation and Public Purposes Act), the Oregon Highway Department and the Montana State Lands Bureau (under the State Enabling Act) may be at less than fair market value.

With the noted exceptions, it appears that prices received by Federal agencies for Section 10 lands are comparable with prices received by state and private landowners. Within the Federal agencies themselves, however, there still exists the variance between the Bureau of Land Management and other agencies regarding below market sales for public purposes.

III. RECENT AND PRESENT PATTERNS OF RETAINED SECTION 10 LANDS

Analysis of patterns and trends of occupancy use of retained Section 10 lands was severely hampered by certain deficiencies in the data supplied by the Federal Agencies. The Department of Defense agencies were unable to supply acreage information for the period 1958 through 1967. They did, however, supply current inventory listings of Navy Outgrants as of June 1969, and Army and Air Force Outgrants as of December 1968. No occupancy use trends could be determined from this type of information. However, the material is presented and discussed separate from other retained data. (See Table X-5).

Most of the Department of the Interior agencies were able to provide annual acreage in retained Section 10 lands by occupancy use for the period 1958 to 1967. However, analysis of this data was restricted by the fact that the Bureau of Land Management reported occupancy use of an additional 659,088 acres of retained Section 10 land under Special Land Use Permits for the year 1967 only. This was all the data that was available. As can be noted in summary Table X-6, this additional acreage increased the total retained Section 10 acreage reported by the Department of the Interior agencies in 1967 to nearly eight times the acreage reported the previous year (1966). In Appendix A (Table 47) the total retained Section 10 acreage reported by the Bureau of Land Management in 1966 amounted to 19,245 acres, or 20 percent of the Department of the Interior's reported total. In 1967 on the other hand, when acreage under Special Land Use Permits was included, the Bureau of Land Management retained Section 10 acreage had increased to 699,994 acres, or nearly 90 percent of the total reported by the Department of the Interior agencies. It is obvious that the nearly 660,000 acres of retained Section 10 land under Special Land Use Permits did not suddenly come into occupancy use in just one year's time. Lacking any information on retained acreage under Special Land Use Permits prior to 1967, it is meaningless to analyze trends in occupancy use distribution of retained Section 10 lands administered by the Department of the Interior agencies for the period 1958 to 1966. Consequently, the analysis is restricted to the year 1967 only.

The Forest Service, due to the nature of its reporting system, was able to report data for only four years (1959, 1961, 1963 and 1965), therefore, summary data for this agency was presented separately in Table X-7.

In an effort to present some meaningful data on retained Section 10 lands administered by all Federal agencies, the information supplied by

Table X-5. Total acreage in Department of Defense Outgrants
by agency and use.^a

Use by Location	Army ^b	Air Force ^b	Navy ^c
Utility Transmission			
Western U. S.	-	-	36
Eastern U. S.	-	-	1
Communication			
Western U. S.	-	-	78
Eastern U. S.	-	-	5
Residential			
Western U. S.	2,442	5,803	-
Eastern U. S.	6,948	7,776	-
Light Industrial/Commercial			
Western U. S.	256	51	17,440
Eastern U. S.	269	1	-
Heavy Industrial			
Western U. S.	40	49	-
Eastern U. S.	3,127	17	-
Community			
Western U. S.	-	-	2
Eastern U. S.	-	-	-
Education, Science & Research			
Western U. S.	513	661	4
Eastern U. S.	1,092	693	-
Military			
Western U. S.	-	-	2
Eastern U. S.	-	-	-
Other Federal Government			
Western U. S.	-	-	-
Eastern U. S.	-	-	2
Other Non-Federal Government			
Western U. S.	-	-	396
Eastern U. S.	-	-	-
Rights-of-Way - Unspecified			
Western U. S.	10,112	3,324	-
Eastern U. S.	40,741	7,811	-
Total All Uses			
Western U. S.	13,363	9,888	17,958
Eastern U. S.	52,177	16,298	8

^aNo acreage was reported for the following uses: transportation, water transmission and reservoir flowage.

^bData reported by Army Corps of Engineers as of 12/31/68.

^cData reported by Navy as of 3/15/69.

Source: U.S. Army Corps of Engineers and U.S. Navy as summarized by the Public Land Law Review Commission.

Table X-6. Summary of acreage in occupancy use on Section 10 lands, retained by Department of the Interior agencies by use and location.

Use by Location	1958	1959	1960	1961	1962	1963	1964	1965	1967 ^a
Transportation									
Western U.S.	8,680	5,051	11,715	6,645	7,681	11,284	14,024	12,920	15,484
Eastern U.S.	1,230	2,025	2,069	2,328	2,441	2,569	2,699	2,894	3,327
Utility									
Western U.S.	1,114	284	889	1,438	300	391	681	692	1,784
Eastern U.S.	29,419	29,625	29,855	30,020	30,374	30,480	30,602	30,821	31,199
Communication									
Western U.S.	54	45	358	70	66	129	122	168	19,074
Eastern U.S.	47	134	178	306	352	479	516	708	756
Water Transmission									
Western U.S.	29	66	534	46	28	77	215	35	2,127
Eastern U.S.	85	87	90	94	102	120	1,241	1,255	1,286
Residential									
Western U.S.	542	567	559	562	485	490	475	456	374
Eastern U.S.	5	5	5	5	6	6	6	10	2,527
Light Industrial/Commercial									
Western U.S.	707	508	517	644	1,494	2,607	5,574 ^b	16,709	25,637
Eastern U.S.	12	744	744	746	748	748	1,737	1,759	1,813
Heavy Industrial									
Western U.S.	932	308	308	308	308	318	308	318	1,173
Eastern U.S.	-	-	-	-	-	-	-	-	-
Community									
Western U.S.	6,531	1,485	410	932	1,154	1,245	4,359	5,273	4,820
Eastern U.S.	11	1,733	133	134	136	160	243	571	251
Reservoir Flowage									
Western U.S.	59	630	5	10	607	1,066	1,565	711	2,129
Eastern U.S.	-	-	-	-	-	-	-	-	-
Educational/Science/Research									
Western U.S.	-	-	-	14	-	-	-	-	178,795
Eastern U.S.	876	876	876	886	886	894	1,139	1,141	1,141
Military									
Western U.S.	-	- ^c	-	3	3	3	4	82	257,292
Eastern U.S.	-	-	-	-	-	-	-	-	66
Other Federal Government									
Western U.S.	3,954	1,408	1,423	1,419	1,419	1,459	1,551	1,428	134,749
Eastern U.S.	11,761	11,761	11,762	11,762	11,762	12,283	12,284	12,284	12,348
Other non-Federal Government									
Western U.S.	11	15	22	39	129	28	51	26	53,649
Eastern U.S.	520	520	520	681	681	699	699	701	702
Total, All Uses									
Western U.S.	22,613	10,367	16,740	12,130	13,674	19,097	28,929	38,818	697,087
Eastern U.S.	43,966	47,510	46,232	46,962	47,488	48,438	51,166	52,144	55,416

^a Including acreage in Special Land Use Permits (reported for 1967 only).

^b Excludes 114,272-acre single lease reported by Bureau of Reclamation in 1964 only.

^c Excludes 860,040-acre single license reported by Bureau of Sport Fisheries and Wildlife in 1959 only.

Source: Department of Interior agencies through the Public Land Law Review Commission.

Table X-7. Summary of acreage in occupancy use on Section 10 lands, retained by the Forest Service, by use and location, for 1959, 1961, 1963, and 1965.^a

Use by Location	1959	1961	1963	1965
Transportation				
Western U. S.	4,042	10,882	12,574	13,907
Eastern U. S.	2,494	3,236	4,219	16,591
Utility				
Western U. S.	5,210	8,204	17,046	34,922
Eastern U. S.	6,334	24,125	21,813	39,748
Communications				
Western U. S.	723	906	1,053	3,220
Eastern U. S.	24,419	831,811	816,203	829,907
Water Transmission				
Western U. S.	2,809	4,840	7,610	5,056
Eastern U. S.	2,433	2,452	9,572	3,122
Residential				
Western U. S.	17,288	14,000	11,602	9,524
Eastern U. S.	4,500	5,372	3,310	3,347
Light Industrial/Commercial				
Western U. S.	7,956	10,295	16,230	9,847
Eastern U. S.	41,152	43,126	40,871	6,588
Heavy Industrial				
Western U. S.	2,329	2,297	1,846	1,088
Eastern U. S.	308	291	388	122
Community				
Western U. S.	8,018	11,647	11,470	11,793
Eastern U. S.	7,839	3,616	3,817	4,252
Reservoir Flowage				
Western U. S.	283,220	124,263	137,096	320,680
Eastern U. S.	101,605	123,485	176,081	230,094
Education/Science/Research				
Western U. S.	24,249	55,316	462,289	68,933
Eastern U. S.	39,086	17,158	19,971	19,514
Military				
Western U. S.	451,857	548,335	700,524	619,642
Eastern U. S.	730,938	1,250,115	3,183,463	3,454,158
Other Federal Government				
Western U. S.	-	454	10	4
Eastern U. S.	160	190	190	190
Other non-Federal Government				
Western U. S.	156	868	1,338	4,244
Eastern U. S.	239	522	612	559
Total, All Uses				
Western U. S.	807,857	792,307	1,380,688	1,102,860
Eastern U. S.	961,507	2,305,499	4,280,510	4,608,192

^a Based primarily on Biennial Reports on Special Use Permits. Reports discontinued after 1965 in anticipation of computerization.

Source: U. S. Forest Service through the Public Land Law Review Commission.

the Department of Agriculture, U.S. Forest Service, was combined with the information supplied by the Department of the Interior agencies for the years 1959, 1961, 1963 and 1965 and is presented in Table X-8.

A. Occupancy Use of Patterns of Section 10 Lands Retained by Department of Defense, 1968-1969

As can be noted in Table X-5, the combined acreage in outgrants for occupancy uses by the Department of Defense agencies in 1968-1969 was 106,692 acres, with the Army administering 60 percent, the Air Force 24 percent and the Navy the remaining 16 percent. Some 56 percent of the outgrants were in Army and Air Force rights-of-way, but the acreages of the specific uses made of the rights-of-way were unavailable. Residential use accounted for approximately 21 percent of all outgrant acreage, again solely in the Army and Air Force. Light Industrial/Commercial use accounted for 16 percent of all outgrant acreage (over 96 percent of this use occurred on Navy land). These three categories accounted for 93 percent of the retained acreage in Department of Defense outgrants for occupancy use. In terms of geographic location, 62 percent of the acreage in outgrants was located in the eastern United States, mostly on Army and Air Force land. In contrast, only 8 acres of occupancy uses of Navy outgrants were located in the western United States. No acreage was reported in transportation, water transmission or reservoir flowage uses by any of the military agencies.

B. Occupancy Use Patterns of Section 10 Lands Retained by Department of the Interior, 1967

While Table X-6 presents information on acreages by use and location for the period 1958 through 1967, for the reasons noted previously, analysis of occupancy use is limited to the year 1967. The occupancy use which accounted for the greatest amount of acreage was military (34 percent). Education/Science/Research ranked second with 24 percent and other (unspecified) Federal Government uses accounted for approximately 20 percent of the 1967 total. Some 697,000 acres were located in the western United States (92 percent of the 1967 total). In terms of individual agency control over this retained acreage, the Bureau of Land Management administered 699,994 acres or 90 percent of the Section 10 acreage retained by the Department of the Interior. The Bureau of Sport Fisheries and Wildlife administered 53,000 acres or 7 percent, the Bureau of Reclamation administered slightly more than 3 percent, and the National Park Service less than 0.5 percent.

Table X-8. Summary of acreage in occupancy use on Section 10 lands, retained by the Department of Agriculture and the Department of the Interior by use for 1959, 1961, 1963, and 1965.

Use by Department	1959	1961	1963	1965
Transportation				
Department of Agriculture	6,536	14,118	16,793	30,498
Department of the Interior	7,076	8,973	13,853	15,814
Total	13,612	23,091	30,646	46,312
Utilities				
Department of Agriculture	11,544	32,329	38,859	74,670
Department of the Interior	29,909	31,458	30,871	31,513
Total	41,453	63,787	69,730	106,183
Communications				
Department of Agriculture	25,142	832,717	817,256	833,127
Department of the Interior	179	376	608	876
Total	25,321	833,093	817,864	834,003
Water Transmission				
Department of Agriculture	5,242	7,292	17,182	8,178
Department of the Interior	153	140	197	1,290
Total	5,395	7,432	17,379	9,468
Residential				
Department of Agriculture	21,788	19,372	14,912	12,871
Department of the Interior	572	567	496	466
Total	22,360	19,939	15,408	13,337
Light Industrial/Commercial				
Department of Agriculture	49,108	53,421	57,101	16,435
Department of the Interior	1,252	1,390	3,355	18,468
Total	50,360	54,811	60,456	34,903

Table X-8. Continued

Use by Department	1959	1961	1963	1965
Heavy Industry				
Department of Agriculture	2,637	2,588	2,234	1,210
Department of the Interior	308	308	318	318
Total	2,945	2,896	2,552	1,528
Community				
Department of Agriculture	15,857	15,263	15,287	16,045
Department of the Interior	3,218	1,066	1,405	5,844
Total	19,075	16,329	16,692	21,889
Reservoir Flowage				
Department of Agriculture	384,825	247,748	313,177	550,774
Department of the Interior	630	10	1,066	711
Total	385,455	247,758	314,243	551,485
Education/Science/Research				
Department of Agriculture	63,335	72,474	482,260	88,447
Department of the Interior	876	900	894	1,141
Total	64,211	73,374	483,154	89,588
Military				
Department of Agriculture	1,182,795	1,798,450	3,883,987	4,073,800
Department of the Interior	860,040	3	3	82
Total	2,042,835	1,798,453	3,883,990	4,073,882
Other Federal Government				
Department of Agriculture	160	644	200	194
Department of the Interior	13,169	13,181	13,742	13,712
Total	13,329	13,825	13,942	13,906

Table X-8. Continued

Use by Department	1959	1961	1963	1965
Other Non-Federal Government				
Department of Agriculture	395	1,390	1,950	4,803
Department of the Interior	535	720	727	727
Total	930	2,110	2,677	5,530
All Uses				
Department of Agriculture	1,769,364	3,097,806	5,661,198	5,711,052
Department of the Interior	917,917	59,092	67,535	90,962
Total	2,687,281	3,156,898	5,728,733	5,802,014
Source: Department of Agriculture, U.S. Forest Service and Department of the Interior as supplied by the Public Land Law Review Commission.				

C. Occupancy Use Patterns of Section 10 Lands Retained by the Department of Agriculture, U.S. Forest Service, 1959, 1961, 1963, and 1965

Table X-7 reflects occupancy use of Forest Service lands. The total inventory has increased from 1.8 million acres to 5.7 million acres. At least 58 percent of this acreage has been occupied for military purposes from 1959 to 1965. Communication facilities have occupied a maximum of 833,000 acres. Reservoir Flowage acreage has ranged from 248,000 to 551,000 acres. Other uses have occupied less than 100,000 acres each within each reported year with the exception of 482,260 acres for Education/Science/Research in 1963. Most use of Forest land has occurred in the eastern United States (between 54 percent and 81 percent of the total), and has been for military purposes. Between 60 percent and 90 percent of retained Forest land in the western United States has been occupied for military and reservoir flowage uses.

D. Occupancy Use Patterns of Section 10 Lands Retained by the
Department of the Interior and Department of Agriculture
(Forest Service)

As can be noted in Table X-8, total retained acreage in occupancy use for these two major departments has increased from 2.7 million acres in 1959 to 5.8 million acres in 1965. Although this does not include some 660,000 acres of Bureau of Land Management land not reported until 1967, the effect on the distribution of uses is negligible. This represents an increase of over 200 percent in less than 10 years. In 1959 Forest Service land accounted for approximately two-thirds of the total. In each of the following reporting years, however, Forest Service land accounted for better than 98 percent of the total. Military use accounted for the greatest amount of acreage, between 57 percent and 76 percent of the total reported each year. Communication uses ranked second averaging approximately 14 percent of the total acreage reported each year, and Reservoir Flowage use ranked third increasing from 385,455 acres in 1959 to 551,485 acres in 1965. Utility uses have consistently accounted for from 1 percent to 2 percent of the total reported acreage (actual acreage has increased from 41,453 acres to 106,183 acres over the reported years). Light Industrial/Commercial use increased from 50,360 acres in 1959 to 60,456 acres in 1963, but then dropped sharply in 1965. Education/Science/Research use has fluctuated considerably with a wide range between 64,211 acres and 483,154 acres. All other occupancy uses fluctuated greatly or were too low to be of any consequence. In terms of geographic location, the eastern United States has experienced the greatest amount of acreage in occupancy use. In view of the fact that the majority of Section 10 lands are located in the Western states, it can be anticipated that the future years will see great increases in occupancy use of Section 10 lands both in terms of the western states and on a National basis.

E. Acreage in Retained Lands by Tenure, 1958 - 1967

From the usable data supplied to the Commission (see Appendix A Tables 61 through 67), five types of tenure arrangement were reported. These include, Permit, Lease, License, Easement and Memorandum of Understanding.

The Permit category includes both Term and Terminable permits used by the Forest Service, as well as Special Land Use Permits, which are a Bureau of Land Management classification. Another Bureau of Land Management tenure arrangement, rights-of-way, is included with the Easement category. The Forest Service is the only land administering Federal agency which utilizes Memoranda of Understanding to authorize occupancy uses.

The following discussion is organized by type of tenure arrangement. As in the preceding analysis, Forest Service data is discussed separately within each tenure heading, since data was available for only 1959, 1961, 1963 and 1965.

1. Permits

Even excluding acreage reported under Special Land Use Permits, this is one of the most frequently used tenure conditions. Acreage under permits has varied from 27,546 to 709,660 acres, between 1958 and 1967. From 23,000 to 30,000 acres has been under the jurisdiction of the Bureau of Sport Fisheries and Wildlife. The Bureau of Reclamation reported as much as 18,700 acres in this tenure. Acreage for the National Park Service permits has ranged from 800 to 4,300 acres. The Bureau of Land Management reported acreage in Special Land Use Permits for 1967 only, however, the 659,088 acres reported that year constituted over 90 percent of the acreage in permits on Department of the Interior land that year.

The volume of Forest Service land under permit has fluctuated between 270,000 and nearly 700,000 acres from 1959 to 1965.

2. Leases

The total acreage under lease arrangement has been between 22,000 and 33,000 acres. Most of this acreage represents use of Bureau of Sport Fisheries and Wildlife lands (roughly 20,000 acres). The Bureau of Land Management reported up to 10,500 acres for this tenure arrangement. The volume of leases administered by the Bureau of Reclamation has more than doubled in the 10 year period (from 1,500 acres to 3,700 acres). The National Park Service had only two acres in this category, and the Forest Service did not report any Section 10 lands under lease arrangement.

3. Licenses

This tenure category had the least amount of acreage (from 400 to 600 acres total). Neither the Bureau of Land Management or National Park Service reported use of licenses. The annual acreage for Bureau of Sport Fisheries and Wildlife was between 257 and 264 acres. For the Bureau of Reclamation, the inventory under licenses varied from 161 to 355 acres.

The Acres licensed for occupancy uses on National Forests increased from nearly 44,000 acres in 1959 to more than 172,500 acres by 1965. These are licenses made by the Federal Power Commission across National Forest land.

4. Easements

The annual average of acreage in easements was about 10,150 acres. This category includes the rights-of-way classification used exclusively by the Bureau of Land Management. At least 50 percent of the acreage in easements were land under the Bureau of Land Management jurisdiction. The total for the Bureau of Reclamation was between 1,068 and 3,362 acres. The National Park Service had a maximum of 2,516 acres in this tenure. The Bureau of Sport Fisheries and Wildlife administered less than 800 acres under easements.

The Forest Service utilized easements for occupancy use on more than 209,000 acres in 1959 and roughly 45,000 acres since that time.

5. Memoranda of Understanding

This tenure condition is used only by the Forest Service. Occupied acreage increased steadily from 1.25 million acres in 1959 to 5.16 million acres by 1965 and by far accounts for the greatest amount of acreage of all reported tenure conditions.

F. Current Charges for Retained Lands

This section is to review comparative data for California, Montana, Oregon and Pennsylvania to show the charges for use of lands retained by the various Federal and state agencies as well as by large and small private landowners for each occupancy use. The discussion is based on Appendix A Tables 68-80. Since the Federal data did not enable selection of similar parcels for which to obtain charges and conditions at the state and private levels, the field research was directed towards ascertaining general policies prevailing. From the field research, it became apparent that policies governing charges, tenure and conditions are relatively stable and uniform within a given agency. For the private landowners, negotiations are usually made at fair market value and generally prevailing conditions. Hence, comparative analysis of state and private landowner policies was pursued with the intent of providing a base against which Federal policies could later be reviewed. Usable Federal information reflects practices of the following agencies: Bureau of Sport Fisheries and Wildlife, National Park Service, Bureau of Land Management, Forest Service and Corps of Engineers.

At the state level, although not all agencies were contacted, sufficient interviews were conducted to provide a representative sample. Primarily, interviews were conducted with state agencies representing Game, Highway, Lands, Planning and Forestry.

Contacts to obtain information relative to private land ownerships were made with the large landowners directly, and with local appraisers considered knowledgeable about practices of small landowners, for the relevant occupancies. In addition, important land users were contacted, i.e., utility companies and transportation companies.

1. Charges by Level of Ownership

In general, Federal, state and private retained land charges are based on fair market value. However, there is rarely any charge for public purpose occupancy uses. The Federal Government does not charge political subdivisions for occupancy use of Section 10 lands. Similarly, state agencies do not generally charge one another, within the same state, for occupancy use of retained lands. On the other hand, private landowners do charge at fair market value for all occupancy use. The only exception is land for Education/Science/Research use, which is occasionally donated free of charge.

There are certain pricing policy differences between agencies within a level of ownership as there are differences and similarities between levels of ownership. The following paragraphs provide a general discussion of these similarities and differences. The information is grouped by level of ownership (e.g., Federal, state or private, and relates to all occupancy uses combined. Private landowner pricing policies reflect both large and small landowners, unless otherwise noted.

a. Federal. In the Bureau of Sport Fisheries and Wildlife, all charges for easements are on a one-time basis for the entire term. The charge represents the consideration for a property right. Generally, short-term easements (2 to 5 years) are issued for borrow sites and maintenance/material sites while easements for highways are long-term (from 50 years up). Charges by the Bureau of Land Management, however, differ in that they are established at a fixed flat fee for a specified time period. The term of tenure is usually "indefinite" for a right-of-way. For leases and permits, charge is made on an annual basis.

In the Forest Service, lands under Terminable Permit carry a one-year term renewable annually. Term Permits, on the other hand, are

issued for a stated number of years. Both types of permits are charged on an annual per acre fee based on 5 percent of fair market value. Occasionally where sites carry inordinately high value by virtue of the use (such as a radio-electronic site), the fee is based on the on-site improvement.

b. State. California state lands are leased at an annual rate of 6 percent of the appraised value. Maximum lease term is 66 years except for residential uses (10 years) and salvage permits (5 years). Nonrefundable application fees as well as expense deposits are required. In contrast, land in Oregon is negotiated on a fee basis, varying with the occupancy use. For example, road rights-of-way are frequently granted at no charge to adjoining property owners. In Montana, easements and rights-of-way are issued in perpetuity. Pennsylvania has increased land rates in order to discourage right-of-way use of state lands. Their annual rate to utility companies, for example, becomes more expensive than would purchase of comparable private land. Their rates are based on an established schedule with annual rentals. There is some difference in pricing within Pennsylvania state agencies, for example, road use rental is charged at \$100 per mile per year plus a security deposit. Also, higher rates are charged for land use near urban areas.

c. Private. As noted previously, charges for private land in all states is based on fair market value. Dollar values are quite often higher for private lands, but this is generally due to improvements.

2. Charges and Tenure Conditions by Occupancy Use

Irrespective of ownership, there are certain charges and tenure conditions that appear common to specific occupancy uses. These are described below.

a. Transportation. In general, tenure for transportation occupancy is usually long-term or unlimited as to time. However, some private owners do limit use to 10 years or less. Annual rates vary considerably. State and private owners appear to base their rates on the prevailing market value and frequently require large security deposits or bonds for this use, as well as lessee maintenance and insurance. The lessor in most cases reserves mineral resources and access rights.

b. Utility. For all types of ownership, tenure for utility use is fairly long-term (i.e., 50 years or more). Frequently, planting and clearing stipulations are imposed. Private easements generally include a reversionary clause in the event of non-use.

c. Communication. The most commonly used tenure instrument for communication use is the right-of-way easement. One exception is the U. S. Forest Service which also utilizes permits. Charges per acre vary considerably for different types of communications user. For example, non-profit organizations may realize preferential pricing. The highest charges indicated were predicated on the investment rather than the land value.

d. Water Transmission. There was very little information available on pricing and tenure conditions for this use at any level of ownership. Generally, this use on Federal lands by communities or semi-public agencies would be at no charge with the exception of license fees by the Federal Power Commission on projects under their jurisdiction.

e. Residential. All instances of residential occupancy cited are authorized by either lease or permit. Lease terms vary, although they are most commonly limited to 20 years. Federal charges are generally established on a fee per acre basis, whereas charges by private owners are based on fair market value with periodic reappraisal. This is probably the most demanding occupancy use in terms of lessor obligations. The lessee usually has responsibility only for utilities, insurance and taxes.

f. Light Industrial/Commercial. For the most part, state and private leases appear to be under much tighter control than those by Federal agencies. Many leases for commercial purposes include 30-day notice clauses or monthly renewals, and generally are for no more than 5 years. Also, lessees are generally committed to construct within a specified term (3 years or less), maintain the premises and pay utilities, taxes and damages. Expiration of most leases, requires removal of improvements by the lessee.

g. Heavy Industrial. All lands not sold for heavy industrial purposes are leased except for use by permit used by the Forest Service in California. In general, charges for this use are similar for all types of ownership, usually at monthly or annual rentals established at a percentage of the fair market value. Provisions are included for periodic adjustments based on changes in the fair market value. In terms of conditions, most relate to land administered by

state agencies and relate to lessee payment of insurance, utilities and maintenance.

h. Community. The most significant distinction for this usage is in the charges at the state level. Pennsylvania rates consist of an acreage minimum plus a percentage of the gross receipts. In contrast, Federal and other state agencies do not charge for community use considering it a public benefit.

i. Reservoir Flowage. Since there is only one example available of this occupancy use, no comparison could be made. Normally, this use would not occur on any but Federal lands, and use would be by other Federal agencies or state agencies at no charge.

j. Education/Science/Research. Most often, land for education purposes is occupied on a no charge basis. This is true at all levels. Where a charge is imposed, it is usually a token fee rather than a per acre charge. Federal agencies generally use permits, whereas, state and private landowners allow occupancy on a lease basis.

k. Military. From the limited data available, the only difference apparent in charges for military use is that Federal agencies allow occupancy at no charge, as compared to a fee at the state level.

Footnotes

1. Department of Transportation; Department of Housing and Urban Development; Department of Defense; Department of Health, Education and Welfare; Department of Justice; Department of the Interior; Department of Agriculture; Post Office Department; General Services Administration; Interstate Commerce Commission; Federal Power Commission; Federal Communications Commission; Civil Aeronautics Board; Water Resource Council; and Federal Aviation Administration.
2. Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.
3. Northeast, North Central and South Census Regions.
4. Appendix A (Tables 11 through 45) lists 41 laws; however, only 34 of these laws relate to data supplied in usable form.

PART 4

SPECIAL USES OF THE RESOURCE BASE

Part 4 discusses in detail particular uses of the resource base. Chapter XI examines certain characteristics of land use normally associated with urban expansion. Chapter XII analyzes the potential growth of new communities in the United States and discusses the role the public lands and the Federal Government might play in new community development. Chapter XIII examines the policies of Federal agencies in providing Section 10 lands for vacation home use. In addition, the terms and conditions applicable to vacation home permits are compared with state and private landowners. Chapter XIV describes other uses of the resource base, focusing on railroad rights-of-way, military, and other Federal Government uses and natural areas.

CHAPTER XI

EXPANDING COMMUNITIES

CHAPTER XI

EXPANDING COMMUNITIES

To provide a basis for testing the appropriateness of present policies of disposal or retention of Section 10 lands for urban uses in expanding, this chapter will examine certain characteristics of various types of land uses associated with urban expansion.

In examining expanding communities special emphasis was given to the size of tract most sought after for efficient development, and the mix of land uses (i. e., residential, light industrial, heavy industrial, public service, and reserved open space) normally allocated in various sizes of communities.

I. SIZE OF TRACT MOST SOUGHT AFTER FOR EFFICIENT DEVELOPMENT

In discussion with experts and review of existing literature, there are no standards generally recognized as to the most efficient size of tract or optimum parcel size for development of residential, light industrial, heavy industrial, public service and reserved open space uses.

Many factors have an impact on the development process and the acreage divisions in any given city. One of the overriding considerations in any development endeavor, whether it be by private or public means, is the availability of land. For example, a home builder may actively be seeking land for a housing development. He can develop a small subdivision of from 5 to 10 acres or 40 acre subdivision if land is available at an acceptable price. Either one of these parcels may be suitable and capable of efficient development.

Another factor affecting the size of tracts most sought after is the presence of existing zoning and subdivision requirements. Every community is different and these differences are not necessarily directly related to the size of the community. In Flagstaff, for example, before any house is constructed, it must be sold; as a result there is no speculative building and no mass development of sprawling subdivisions. In addition, one of the subdivision regulations requires that all lots in the total package be completed with all improvements in before the first house may be built. As a result, subdivisions in Flagstaff, Arizona, are quite small; 5 to 10 acres is not uncommon.

Market considerations play a major role in determining the size of any given development. If there is a great demand for industrial land, the developer may seek a large amount of acreage for industrial park development. The developer could then put in the major improvements, such as streets, utilities, water, and sewers, do a preliminary plot map and sell industrial parcels to purchasers in any size they wish. Thus, an owner of a small plant could come in and purchase an acre and a half while a larger concern could purchase 10 acres in the same industrial park. The developer would plan his industrial park to be as flexible as possible in anticipation of diverse client needs.

Land costs often have an immediate effect on the size of tract to be developed. This land cost factor is also directly related to financing methods and the availability of money at suitable interest rates. Where land is cheap, a developer will purchase large quantities for speculative purposes. Where it is more expensive, definite and immediate plans must exist for development and less land may be purchased as a result.

Another major consideration is the rate of community growth and the absorption potential. This element goes hand in hand with consideration of the market, but it is important to note distinct qualitative differences between a city which is growing at a rate of 5 percent a year and one which is growing at a rate of 20 percent per year.

Despite these variables, certain generalizations may be made regarding space needs for each type of use. Space standards are based on a unit of measurement in most cases, i. e., a person, household, a worker, or a shopper. For this reason, population forecasts and economic trend projections are fundamental in determining future space requirements for each city. One urban planner, Harland Bartholemew, attempted to categorize standards by type and size of community. A tabulation of his findings is found in Table XI-2 and is discussed in Section II which follows. Despite the lack of standardization, this report will take the specified use categories and point out some of the factors that do determine optimum size.

- (1) Net Household Formation (based on demographic characteristics including population growth).
- (2) Net Change in Housing Inventory (considers demolition, slum clearance, code enforcement, etc.).

- (3) Vacancy Rates.
- (4) Housing Costs (including rents and interest rates).
- (5) Consumer Preferences (single-family dwellings vs. multiples).
- (6) Other Demographic Factors including income, age and race.
- (7) Location of People.
- (8) Planned densities, zoning ordinances, subdivision requirements.
- (9) Supply of Vacant Land Available.

Since these factors which influence demand vary from community to community and within a community, individual studies are often needed for each housing project to determine the size of a particular development.

A. . Industrial Land: Heavy and Light

According to Homer Hoyt, several factors affect the selection of all industrial land: "Factory owners now universally prefer one-story plants where all manufacturing operations can be conducted on one floor level, where trucks and railroad cars can deliver materials inside the plant, where the factory can be expanded on any side, and where there is ample yard space for storage and parking. Since adequate land space is now of paramount importance, and since most workers now own automobiles and most shipments are by truck, industrial managers prefer locations in suburbs on belt highways with railroad connections nearby." 1/

Hoyt also makes reference specifically to light industry and its increased latitude in site selection: "The new type of industry in attractive landscaped grounds can be placed near high-grade residential suburbs so that managers and foremen can live near their work-attractive surroundings for industry have become important assets in attracting engineers and highly skilled personnel." 2/

In addition, the type, size, and location of industrial land depends on the nature of the product, the location of raw material, land costs, expansion plans, tax implications, etc.

B. Public Service Buildings

The amount of land needed for public service buildings (i. e., governmental, institutional, quasi-public) differs in each community, particularly where several governmental units, such as City, County, State or Federal are involved. These space needs are related most closely to governmental employment which in turn is related to the demand for services generated by the population.

Other factors are also causative. For example, legislators may procure federal or state activities for their home town and on occasion, ambitious local leaders have dedicated their careers to monumental building programs. As a result of these influential factors, some areas may be overbuilt with government offices while others may be sadly in need of new facilities. There are no generally accepted standards for these kinds of activities, although Table XI-1 should be consulted for some indications of the existing patterns.

C. Residential Land

The amount of land to be devoted to residential use depends on the demand for housing in any given community. This demand can only be determined by examining a variety of factors in a given community. These factors include:

- (1) Change in population from both natural increase and migration.
- (2) Changes in family size.
- (3) Age composition.
- (4) Mortgage credit policies.
- (5) Consumer tastes and preferences in housing (single family vs. multiple family).

D. Reserve Open Space

Reserve open space cannot be measured in terms of acres. Rather, it should be defined in its broadest terms; that is, as space which is reserved from use for buildings or structures. In other words, it is the counterpart of development. It may be air, land, or water located in big cities or in the open countryside remote from urban development.

It may be an active recreation area, like Central Park in New York, or a vista of the San Francisco Bay from Russian Hill. It can be a large national forest, a balcony in a high-rise, or just a tree lined suburban street. It may be publicly or privately owned. It may be owned in full or may only be partial rights or easements. It may be used for recreation, water supply, and/or tourism. Open space must be seen not only as a space reserved from development, or green splotches for parks on land-use maps, but as an essential element determining and defining the character and quality of the urban environment. Planning for parks, for watershed, for scenic beauty, for tourism, for conservation, and for amenities cannot be undertaken as a single function, nor can acreage limitations be assigned to each one. As a guide to a particular type of open space, however, generalized park and recreation standards have been set forth by F. Stuart Chapin. These standards directly related to population size and density are presented in Table XI-1 below.

Table XI-1. General standards for selected recreation areas.

Facility or Area	Population Standard	Site-Size Standard
Playground	1 Acre/800 population	5-10 Acres
Local Parks	1 Acres/1000 population ^a	2 or more Acres
Recreation Center (or)	1 Acre/800 population	15-20 Acres
Playfield	1 Acres/800 population	10-30 Acres
Major Natural Parks	1 Park/40,000 population	100 Acres/Park
Public Golf Course	1 Hole/3000 population	150 Acres/18 Holes
County Fair Grounds	1/County Seat	Special ^b
Colosseums	1/Metropolitan Area	Special ^b
Public Stadiums	1 Stadium/100,000 pop.	Special ^b
Botanical Garden	1/Metropolitan Area	Special ^b
Zoo	1/Metropolitan Area	Special ^b
^a Varies according to residential densities ranging from 2 acres per 1000 in areas of multi-family dwellings down to 3/4 acres per 1000 population in single family developments. ^b Site size estimated according to size of facility appropriate to size of region served, facilities desired, and parking and service areas needed. Source: F. Stuart Chapin, <u>Urban Land Use Planning</u> , University of Illinois Press, 1965.		

II. COMPOSITION OF THE MIX OF LAND ALLOCATED TO USES ASSOCIATED WITH NORMAL EXPANSION IN VARIOUS SIZES OF COMMUNITIES

Research indicates that the most comprehensive work done in this area is found in Harland Bartholomew's book Land Uses In America. This study, published in 1955, was an attempt to determine standards of land-use allocation in central and satellite cities varying in size from less than 5,000 to over 250,000 population. This allocation analysis was based on the number of acres per 100 persons in the various sized communities devoted to the following uses: residential (single and multiple family), commercial, industrial, railroad right-of-way, parks and playgrounds, public and semi-public, and streets. This information is presented in Table XI-2.

As can be noted, satellite cities or small communities have more acreage per 100 persons. The residential acreage ratio, in particular, greatly decreases once a city's size exceeds 25,000 people. With the exception of cities of 10,000 or less population there appears to be a standard of approximately one-half acre in parks and playgrounds per 100 persons regardless of the size of the city. Commercial use, with the exception of cities under 5,000 population, averages between $1/5$ and $3/10$ of an acre per 100 persons. This study, of course, was performed in 1955, and even then Bartholomew cautioned that the data was based on older cities and was to be considered only a general indication of land use distribution. A more recent study made by Charles Abrams ^{3/} covered land use in seven major metropolitan regions. All had populations in excess of 500,000 and some ranged as high as 7 million. There was great variation in land-use allocation. In all cases, residential acreage represented from one-third to better than one-half of the total developed area. Commercial use ranged from 2 to 4 percent of the total area. No other standards of land use distribution were evident.

Table XI-2. Land uses - acres/100 persons.^a

Satellite Cities					Central Cities				Totals		
Land Use	Less 5000	5 to 10,000	10 to 25,000	25,000+	Less 50,000	50 to 100,000	100 to 250,000	250,000+	11 Urban Areas	All Satel.	All Central
Single Family	7.13	7.62	6.33	1.79	3.4	2.48	2.86	1.43	3.72	3.14	2.19
2 Family/Multiple Family	.29	.42	.44	.53	.54	.50	.47	.59	.44	.51	.54
Commercial	.82	.31	.28	.18	.31	.21	.23	.21	.39	.22	.23
Industry	1.77	.53	.21	.78	.57	.38	.47	.43	.84	1.09	.55
Railroad R/W	1.22	.82	.40	.34	.50	.39	.43	.22	.92	.40	.33
Parks & Playgrounds	.81	1.51	.62	.20	.51	.52	.46	.43	.68	.38	.46
Semi Public	6.17	3.11	1.69	.40	1.32	.87	.90	.48	3.75	.95	.75
Streets	8.79	7.11	3.27	1.55	2.82	2.66	2.21	1.25	4.10	2.40	1.94
Total Developed Area	27.00	21.43	13.24	5.77	9.97	8.01	8.03	5.04	14.84	8.69	6.89
^a This data is based on studies of older cities and should be considered as only a general indication of land use distribution. Source: "Land Uses in American Cities," by Harland Bartholomew.											

III. EXAMINATION OF FIVE EXPANDING COMMUNITIES

These case studies were to examine the amount of Section 10 Lands, State Lands, and Private Lands that have been developed for urban uses over the last ten years. In addition, the prices received for land for various urban uses by the Federal, State and private owners were to be compared. These data were not readily available in these case study communities. Historic information on land use over a ten year period were not recorded by these cities with the exception of Reno, Nevada. The data for Reno is included herein. Data for the other cities could not be obtained without extensive detailed investigation of assessor's records, building permits, old aerial photographs, and other original source materials for each successive year. Similarly, data on prices received for each urban use under the various ownerships would have required an exhaustive investigation into sales from various real estate transaction records. Research of this nature for each of the case study cities was considered beyond the scope of this study. During the interviews, however, general information was requested on land use patterns and the comparability of prices received from transactions of the Federal Agencies, State and private owners. Where such information was available, it is included.

A. Alamogordo, New Mexico

1. Background

Alamogordo is located in the south central part of New Mexico near the White Sands Proving Ground. It is nine square miles in size and has an estimated current population (January, 1969) of 28,000 as compared with 21,723 in 1960. According to the Alamogordo General Plan, the population is expected to reach 57,000 persons by 1990; an additional 6.5 square miles (4,160 acres) will be needed to accommodate this growth. A brief history of Alamagordo's development will show how the present land-use patterns have emerged.

The original planning and development of Alamagordo was related to the railroad which runs north-south on the west border of the city, and the development and promotion of a community along this railroad at a point at which water was available. Alamagordo is located between the Sacramento Mountains and the vast flat expanse of the Tularosa Basin. The railroad is paralld by a major north-south highway. These two transportation routes created a strong barrier, which to this date has contributed (in part) to the absence of development along the western part of the city.

The commercial facilities were originally located east of the railroad, and the industrial areas were planned to be located west of the railroad. Very little industrial development has occurred, but the General Plan continues to propose this type of development in that area. This original pattern continues and Alamogordo remains a compact city with the central business district on the westerly edge of the urbanized area adjacent to the railroad and highway. Because the city was started along the edge of a barrier, it has grown away from the barrier with the result of an imbalance of population around the central business district.

Because of the presence of Holloman Air Force Base (which is virtually the only basic industry in the area) properties adjoining the major north-south highway (U.S. 70) were developed with commercial facilities related servicing military personnel. Thus, there are numerous auto dealers, trailer parks, trailer sales, moving and storage companies, auto repair shops, filling stations, drive-in movies and motels.

Tenth Street is the east-west thoroughfare that has been the main access route for new residential growth occurring easterly toward the mountains. As the city grew in that direction, more of the convenience and service type commercial establishments developed in this area. Grocery stores, clothing stores, professional offices, financial institutions, etc., have been located here in contrast to the businesses located on the north-south route which caters to military personnel and travelers.

Residential development consists almost entirely of single-family dwellings of which 28 percent are in deteriorated or dilapidated condition.

2. Section 10 Lands

a. Share of Section 10 Lands Suitable for Urban Development. Section 10 lands in the Alamogordo area include Holloman Air Force Base located southwest of the city, Lincoln National Forest on the east, and the Bureau of Land Management to the north and south.

Alamogordo's expansion pattern has been north and east along the foothills below the Lincoln National Forest. There has been no desire to expand westerly toward Holloman Air Force Base inasmuch

as the land is quite flat and desolate and its low-lying character makes sanitation and flood control quite difficult. Some growth is occurring in a southerly direction, but this is not as active as in the north.

In a sense, Alamogordo's future growth is restricted on both the east and west sides by the presence of Federal lands. However, the Federal ownership on the west (Holloman Air Force Base) is more than six miles from the western edge of the city boundary. According to the General Plan, limited industrial development is the only use proposed in a westerly direction. Forest Service land adjacent to the city boundary on the east is too steep (for the most part) even for low density residential development.

Thus, while Federal lands on the east and west sides of Alamogordo are quite close to the present urbanized area, there is at present no necessity or plan to expand in those directions. The remaining land suitable for urban development to the north and south consists of far more than the estimated 4,142 acres required for the future growth of Alamogordo. With the exception of some Bureau of Land Management land, this land is privately owned.

b. Ten-Year Disposition Pattern by Use. During the last 10 years, there has been no disposal of Forest Service lands or military lands for urban expansion for the reasons indicated above. There have, however, been several sales of Bureau of Land Management lands. Table XI-3 documents relevant Bureau of Land Management disposals during the last 10 years. This list only includes lands which have been, or most likely will be developed into urban uses. The total amount involved is 2,785 acres. Of this 840 acres will be developed as educational sites, 90 acres are being used for sewage treatment and community dump, 1,675 acres will be developed for municipal water supply and 180 acres will provide recreational facilities, 140 acres of which will be in city golf courses.

c. Relative Prices Received by the Federal Government. Table XI-3 also indicates the actual sales price as well as the market value of the disposed land at the time of the sale. This market value is based on the market value of comparable privately owned land.

Table XI-3. Bureau of Land Management sales of Section 10 land in Alamogordo, New Mexico, 1957-1968.^a

Occupancy Use	Acres	Market Value	Sale Price
Site for New Mexico School for the Visually Handicapped	200	\$50,000.00 or \$250/acre	\$ 500.00 or \$2.50/acre
Community College Site -- Branch of New Mexico State University	560	Not Available	\$1,400.00 or \$2.50/acre
Educational Site	80	\$ 7,750.00 or \$97/acre	\$ 200.00 or \$2.50/acre
Municipal Water Supply	1,365	Not Available	Further action pending
Water Wells and Storage (Possibly future recreation site).	310	Not Available	\$7,200.00 or \$23/acre
Garbage Dump for village of La Luz, New Mexico	10	Not Available	20 year lease at \$10/annum
Sewage Treatment Plant	80	\$ 4,000.00 or \$50/acre	\$ 200.00 or \$2.50/acre
Picnic and Recreation Site (City Park)	40	Not Available	Not Available
Municipal Golf Course	100	Not Available	\$ 250.00 or \$2.50/acre
City Golf Course (Development Plan not yet submitted)	40	\$ 3,200.00 or \$80/acre	\$1,120.00 or \$28/acre

^a Under the authority of the Recreation and Public Purposes Act of June 14, 1926 (44 Stat. 741).

Source: Bureau of Land Management

As can be noted, market value and actual sale price of the land were quite different. Educational sites ranged in market value from \$90 to \$250 per acre. ^{4/} Land for community facilities was valued at \$50 per acre and sold at \$2.50 per acre plus a lease for 10 acres at \$10 per year. Land for municipal water facilities sold for \$20 per acre. No estimate was made of the market value. Recreational land sold for from \$2.50 to \$28 per acre while the market value for some of the land was as high as \$80 per acre. In all cases market value of the land was much greater than the actual sale price.

3. State Lands

a. Share of State Lands Suitable for Urban Development. No estimates have been made on the amount of state-owned lands which would be suitable for urban development adjacent to the Alamogordo area since no sales have occurred and no demands have been made for such land.

b. Ten Year Disposition Pattern by Use. There has been no disposition of state-owned lands adjacent to the Alamogordo area in the last 10 years. Consequently no price information exists.

4. Private Lands

a. Share of Private Lands Suitable for Urban Development. All private land to the north and south of the present urbanized area is suitable for urban development. As indicated above there is far more available in private ownership than the projected 4,142 acres which could be needed. It was found impractical to determine the vast amounts of unoccupied, privately-owned lands in the vicinity of Alamogordo.

b. Ten Year Disposition Pattern by Use. Sales of private land during the last 10 years could not be determined. Such information was not available from the literature and personal interviews. Furthermore, it was not possible to determine the uses for all these properties, since land use information for the last 10 years was not available.

c. Relative Prices Received by Private Owners.

This information could only be obtained in a general way by contacting realtors and appraisers in the Alamogordo area. Information of a general nature was obtained for residential, commercial, and industrial uses.

During the last 10 years residential land has increased in value by approximately 60 percent. At the present time an unimproved R-1 lot ranges in price from \$30-\$41 a front foot, the average width being 65 feet. Thus the average lot price ranges from \$1,950 to \$2,665. The higher priced land is closest to the mountains on the east and there is a steady downward trend the closer one gets to the highway and railroad (the old part of the town). Experience with multiple units has been quite limited but some land has been sold for \$.50 per square foot.

Alamogordo presently has a good supply of commercial land available. However, established commercial areas seem to bring a relatively high price. Land on U. S. 70 or Tenth Street brings approximately \$2.00 per square foot.

One of the city's major problems is the lack of industrial diversification. At present, the governmental and military installations at White Sands Proving Ground and Holloman Air Force Base are the only major source of employment in the community. The fortunes of Alamogordo thus rise and fall with military programs and appropriations. The city is actively seeking to attract industry even though lack of sufficient water is a definite deterrent. To counter this disadvantage, the city is willing to practically give away acreage from two sections of land (1,280 acres) which they presently own west of the rail lines. As a result of this condition, it is impossible to evaluate industrial land prices and values.

5. Problems Associated with Urban Expansion and Federal Lands

In terms of Alamogordo's geographic expansion beyond the present city limits, it must be concluded that Federal ownership of adjacent and nearby lands presents no problems for orderly growth of the community.

The absence of Forest Service exchanges has, in part, been due to the efforts of the city to prevent disposition of any of the Lincoln National

Forest adjacent to its boundaries. Alamogordo is anxious for the Forest Service to maintain control of the watershed in the forest and to develop more recreation areas as a part of its multiple use policy.

Bureau of Land Management disposals have been handled quite smoothly according to city officials through both private and public purchases. In fact, Bureau of Land Management evidently made more land available than is currently needed or desired by either public or private sources. City officials were particularly pleased with the low-cost acquisitions they have been able to make through the Recreation and Public Purposes Act.

B. Aspen

1. Background

Aspen, Colorado is an active resort community catering to both winter and summer recreation enthusiasts. As a result of the over-all national increase in recreation activity and its year round potential, Aspen's full-time population has almost doubled in the last eight years. A special census in 1968 showed a population count of 2,081. The town itself is located in a basin area surrounded by steep slopes. This base land which is generally flat and suitable for a variety of urban uses covers an area of about 12 to 14 square miles, all of which is privately held. Present corporate limits include 1.2 square miles. The heart of the town is located at the base of the Aspen Mountain, which is owned by the Lincoln National Park and the Aspen Ski Corporation. In 1966 a general plan was completed for the Aspen area. In that plan a future residential development was analyzed as a step to preserve developed areas and to develop the potential of the undeveloped sectors. According to that plan the maximum holding capacity of the entire residentially designated area was estimated to be 34,650 persons. However, 12,850 were expected during the forthcoming twenty year planning period. In addition to the residential projections, the plan called for increased commercial activity in the center of Aspen and some specialized industrial uses.

A generalized land use history provides valuable insight into the development of the town. Aspen was a silver mining boom town in the late 1890's. Surrounded by spectacular Alpine scenery, this compact city provided housing, commercial outlets, and cultural facilities for a population of nearly 12,000 in 1893. The town was the base for extensive mining operations higher in the mountains and

ranching activities in the valleys. The city form reflected the physical limitations imposed by the location of mines and smelting operations, the primitive state community facilities, and the absence of convenient transportation methods. The result of these limitations was the creation of a definite border or area of urbanization where the city stopped and the countryside began. There is a sharp contrast between urbanization and the natural landscape.

Following a population decline to 700 persons in the 1930's, the emergence of recreation as a basic industry stimulated the reawakening of the city. In addition to the permanent resident population in the area, there are presently accommodations for 10,500 visitors at any one time in the Aspen area.

Aspen has maintained much of its early character. Many of the principal buildings of the 1890's remain, and the street pattern exists now much as it did then. The major business activities dependent upon use of ski slopes and accommodations are still concentrated in the Aspen town center. As in the 1890's, there are satellite employment centers where there are associated accommodations beyond the central area. The most significant change to date has been the replacement of many early Aspen residential structures with contemporary housing and tourist accommodations and the gradual encroachment of these structures on the countryside.

2. Section 10 Land

Most of the land managed by Federal agencies is more suitable for recreation purposes such as the ski slope areas or is too rugged to permit any kind of urban development. Up to this time there has been virtually no forest land used for any kind of urban purposes. The same is true of the Bureau of Land Management land except for an 82-acre parcel which is currently in the process of being sold to the city of Aspen under the Recreation and Public Purposes Act.

3. State Lands

No information was available on the amount of state owned land suitable for urban development adjacent to the Aspen area.

4. Private Land

a. Share Suitable for Urban Development. Most of the 12 to 14 square miles of land in the Aspen basin is privately owned and is more than adequate for Aspen's future needs.

b. Ten Year Disposition Pattern by Use. While no specific records were available on land dispositions over the last ten years, the general pattern has been a continuation of development of the skiing facilities and tourist accommodations.

c. Relative Land Prices. As a result of the development of excellent skiing facilities, good access and an active public relations campaign, Aspen, Colorado has become one of the most famous and elegant winter resort areas in the world. As a result of this spectacular appeal, land prices have naturally risen significantly over the last several years. In fact, they change so rapidly that conventional appraisal methods seem unsuitable for the area. According to one source, land values have been moving up over 12 percent per year for the last six to eight years. Commercial land in the central business district of Aspen is currently running around \$6.50 per square foot. Hotel land averages around \$5.00 per square foot and residential land is \$3.00 per square foot.

One of the more interesting developments in terms of accommodations has been the successful development of condominium units at the base of the ski slopes. At the present time there is a two-block area in the center of Aspen where there is 4-1/2 million dollars worth of condominium development. The success of this type of development lies in the fact that an individual can purchase a small condominium unit for approximately \$36,000. He then may use it several times during the year and then rent it like a hotel room for the rest of the season. There is quite a demand for this kind of accommodation and evidently the Aspen Tourists and Visitors Bureau maintains a complete listing of these condominiums and acts, in a sense, as a booking agent for each individual. The individual owner is thus able to pay the mortgage payment from the rent which he receives during the rest of the year and receive certain tax benefits thus providing him with a net return of as much as 5 percent a year after the first year or two. In addition to the condominium developments, are individual home sites. There are several new developments in the Aspen area which offer a variety of sites to individual purchasers. The price range is quite wide, but generally speaking a lot runs between \$2,000 and \$7,000 per acre, depending on location and availability of utilities as well as access.

5. Problems Associated with Urban Expansion and Federal Lands

In discussing the city's relationship to the Federal agencies, it was discovered that there had been considerable difficulties regarding the desired acquisition by the city of an 82-acre site under jurisdiction of the Bureau of Land Management. In 1966 the city of Aspen, in connection with a Park and Recreation development plan, met with the Bureau of Land Management concerning an 82-acre parcel located adjacent to the city limits. This parcel was desired for city park purposes. The land in question is suitable for hiking and picnicking and would be designed for day-use by the residents and visitors. In April of 1967 the city applied for purchase of this land under the Recreation and Public Purchase Act. According to city officials there was no established application form nor any set of instructions directing the city as to the requirements and facts to be set forth in the application. Nevertheless, the city outlined as best they could exactly what they wanted and indicated the proposed development plan. In May, the Bureau of Land Management informed them that they had forgotten to submit a \$10 fee and the city subsequently sent it in. That was the last they heard about the application. Finally, in January of 1968 the city wrote to the Bureau of Land Management to find out why they had not heard anything about the pending application. The Bureau of Land Management responded by telling them that work was progressing on their application. In July the Bureau of Land Management indicated that the title was not clear and that they were in the process of determining the extent of the claim on the land. Finally, in November of 1968, the Bureau of Land Management said that preliminary transfer would occur in 30 days. At the end of this period the Bureau of Land Management said that no objections had been received from the government and that transfer would occur within 30 days. By January of 1969 final actions had still not been taken. Thus far the total time involved in this rather simple disposal has been two and a half years. The city of Aspen feels that the Bureau of Land Management has been very slow in completing this disposition. In addition, they feel that it is incumbent on the Bureau of Land Management to set up more definite application procedures and directions for completing negotiations of this kind. The city has pointed out that this delay has caused hardships in budgeting because they have not been able to determine exactly when expenditures will have to take place pending the final disposition of the land.

The city of Aspen was quick to point out the excellent relationship that exists between the city of Aspen, the Aspen Ski Corporation and the Forest Service. The Forest Service has evidently done a fine job in the work connected with the maintenance and supervision of the ski slopes. The Aspen skiing activity is evidently a very well run operation, thanks in part, to the Forest Service.

C. Flagstaff, Arizona

1. Background

On the Coconino Plateau at the foot of the San Francisco Peaks, Flagstaff is completely surrounded by the Coconino National Forest. At the present time, the city consists of 63 square miles with only seven or eight actually in urban use. The 1969 population estimate is 26,500 and future estimates project 61,500 by 1985.

The city, noted for commercial lumbering, cattle, and tourist activities, is the seat of Coconino County, the second largest county in the United States. More than 92 percent of the County lands are in Federal Government ownership. This consists of the Coconino and Kaibab National Forests, the Indian reservations, and the National Park Service Areas.

2. Section 10 Lands

a. Share of Section 10 Lands Suitable for Urban Development. Section 10 lands in and around the city of Flagstaff consist of Forest Service holdings (Coconino National Forest). Within the corporate limits of the city, 41.2 percent of 26.36 square miles is National Forest land. A large segment of this land is not suitable for urban use because of comparatively high elevation, rugged terrain, water shortage and access. However, at the present time, the Forest Service has designated approximately 3,500 acres within the corporate boundaries for exchange. All of this acreage is evidently suitable for some kind of urban development.

b. Ten Year Disposition Pattern by Use. Over the years excellent records have been kept on Forest Service disposals. The tables ahead indicate past exchanges, those which are in progress, and special dispositions set up for community use by special provisions.

Table XI-4. National Forest exchanges to date, Flagstaff, Arizona.

Case	Date	Acreage	Appraised Value In Dollars	Applicable Law	Present Use
Daniel Kittredge	10/5/62	100	43,000	3/20/22	Subdevelopment
City	2/5/59	765	36,371	3/20/22	Buffalo Park-Building Site-Vacant
Caughran & Nauman	3/13/61	78	60,000	3/20/22	Subdevelopment
Roy Fanning	3/27/61	15	16,000	3/20/22	Subdevelopment
George Siler	2/15/63	20	18,400	3/20/22	Vacant
Phoenix Title & Trust	2/21/61	200		3/20/22	Industrial
Michael Purcell	12/5/56	1.25	3,776	3/20/22	Hospital
Whiting Bros.	8/27/65	126	207,000	3/20/22	Commercial
Wm. Dewees	7/11/52	35	5,722	3/20/22	Commercial
Phoenix Title & Trust	2/21/61	80		3/20/22	Vacant
Bruno Rezzonico	6/6/68	100	244,000	3/20/22	Interchange-Commercial Development
Phoenix Title & Trust	2/21/61	360		3/20/22	Vacant
Wm. R. Bourdan	10/8/62	70	28,000	3/20/22	Vacant
Earl H. Johnson	11/23/55	40	6,300	3/20/22	Residence
Charles Sanders	5/25/61	25	9,400	3/20/22	Commercial Development
Phoenix Title & Trust	2/21/61	40		3/20/22	Vacant
No. Ariz. Title	4/7/58	2.50	700	3/20/22	Vacant
No. Ariz. Title	11/8/63	40	18,000	3/20/22	Subdevelopment
No. Ariz. Title	9/18/58	1.94	550	3/20/22	Subdevelopment
Arizona Game & Fish	9/20/63	60	28,000	3/20/22	Office & Horse Pasture
NAU	1/12/66	95	57,500	3/20/22	University
Ariz. Lumber & Timber	2/24/66	40	45,000	3/20/22	Commercial
Imperial Properties	8/23/68	65	37,000	3/20/22	Commercial-County Yard
NAU		75	64,000	3/20/22	University
Robert Greer	11/14/60	113.25	73,400	3/20/22	Subdevelopment
Ariz. Land App. Fund	10/8/65	40	107,000	3/20/22	Commercial
Michael Purcell	12/5/56	101	35,500	3/20/22	Commercial
Phoenix Title & Trust	2/21/61	80	237,000	3/20/22	Commercial-Value here also includes
McCormick	4/13/61	20	11,000	3/20/22	Subdevelopment
Transamerica		33	53,000	3/20/22	Residence
Transamerica		40	20,600	3/20/22	Horse Ranch
Transamerica		20	22,000	3/20/22	Residence
McAllister	2/1/68	80	88,000	3/20/22	Vacant
Crisp	2/13/68	80	56,000	3/20/22	Vacant
Airport	7/30/48			5/3/46	
Source: U.S. Forest Service					

c. Relative Prices Received by the Federal Government. The disposition tables ahead provide price information on exchanges of the Coconino Forest.

Table XI-5. National Forest exchanges in process,
Flagstaff, Arizona

Case	Acreage	Appraised Value (\$)	Applicable Law
O'Horo	27.50	29,000	3/20/22
Arizona Game & Fish	195	144,000	3/20/22
NAU	310	302,000	3/20/22
Chambers	140	154,000	3/20/22
Rezzonico	55		3/20/22
Transamerica	7.50	6,700	3/20/22
Transamerica	80		3/20/22
Transamerica	12.20	26,000	3/20/22
Transamerica	40	28,000	3/20/22
Source: U. S. Forest Service			

Table XI-6. National Forest Areas set up for community use,
Flagstaff, Arizona.

Acres	Use	Authority
140	City Park	Special-Use Permit Agreement (Reservation)
255	Proposed Park, School, and Water Plant	
15	Proposed City Park	Agreement (Reservation)
60	Kinsey School	Special-Use Permit
40	Weitzel School	Special-Use Permit
25	Proposed School Site	Reservation
50	Proposed School Site	Reservation
40	Proposed School Site	Reservation
Source: U. S. Forest Service		

3. State Lands

a. Share of State Lands Suitable for Urban Development. The State of Arizona owns 14.9 square miles of land within the city of Flagstaff. This represents 23.3 percent of the total city area. A large portion of the land is suitable for urban development, but no information plans were revealed from the State of Arizona regarding their plans for land disposal, nor was there any indication of how much state land was already developed.

b. Ten Year Disposition Pattern by Use.
No data was available on the amount of state land disposed by use for the last ten years nor was there any data available on the relative prices received by the state.

4. Private Lands

a. Share of Private Lands Suitable for Urban Development. At present, 26.6 percent or 17 square miles within Flagstaff are under private ownership. Using the existing land use figures, it is estimated that privately owned and developed land amounts to 5.9 square miles. This should leave approximately 11.1 square miles vacant and presumably suitable for development (with the exception of lands with topographic problems).

b. Ten Year Disposition Pattern by Use.
No information was available on past land use or past disposals.

c. Relative Prices Received by Private Owners.
As with all the case cities, Flagstaff has experienced a substantial increase in the price of land over the last several years. The most dramatic changes began approximately seven years ago as the result of several major developments. These included:

- (1) Expansion of Northern Arizona University (present enrollment, 9,500)
- (2) Establishment of the Astro-Geology Laboratory

(3) Completion of Black Canyon Highway (making Phoenix only 2 hours 15 minutes by car)

These growth factors had their most significant impact on residential and commercial land values. It was estimated by realtors in Flagstaff that undeveloped acreage has gone from an average of \$50 per acre to \$500 per acre during the period 1962 to 1968. However, this estimate was quite rough and is not substantiated by the appraised values of Forest Service exchange parcels. (See table on Exchanges.)

Land prices for developed acreage is surprisingly high because of inordinately high development costs. This is the result of volcanic rock substrata which makes utility installation particularly difficult. Thus, the average 75 x 100 foot finished residential lot may run as high as \$6,000 to \$7,000. Actual development costs are approximately \$3,000 per acre.

Commercial prices average around \$5,000 per acre but a service station site on U. S. 66 could run as high as \$80,000.

There is little industrial activity in Flagstaff, so that judgements regarding land values must be limited. However, one industrial park is offering developed land for \$4,000 to \$6,000 per acre.

5. Problems Associated with Urban Expansion and Federal Lands

It was initially thought that Flagstaff, Arizona was having expansion problems due to the presence of Federal lands. We therefore expected to find a situation where there was a conflict between the U. S. Forest Service and the local community. However, this was not the case. On the contrary, representatives of all segments of the community (Forest Service officials, City government officials and private developers) indicated that there was a real spirit of cooperation and joint planning being undertaken to insure orderly expansion of Flagstaff and at the same time maintain appropriate parts of the National Forest for public purposes under the multiple use principle.

In the early 50's there was considerable conflict between the city of Flagstaff and the U. S. Forest Service, because of the inability of the Forest Service to provide vitally needed land for public uses. The city of Flagstaff was desperately in need of school sites, a park site, and several other parcels for community purposes, but could only

acquire them through the conventional exchange procedure which would have involved a considerable amount of money. In order to alleviate this problem the Forest Service set up special areas for school reservation and other public uses. In other words the Forest Service loaned the city the land to utilize on a temporary basis until such time as they could afford to acquire it via the exchange procedure. This was done during 1960-1961. The land was to be utilized for the following purposes and consisted of a total of 625 acres:

3 city parks

8 schools

1 fire house

1 county yard

1 well field

1 dog pound

In addition to that transaction, which evidently satisfied the city officials, the Forest Service began to develop its long-range policy for disposal in or around the Flagstaff area. The Forest Service policy is presently to acquire manageable parcels beyond the urbanizing area. They have no desire to maintain any kind of management control or ownership over land which is no longer suitable for forest uses. At the present time the Forest Service is faced with the presence of hundreds of permits criss-crossing their land, which are there by virtue of the presence of an urban area nearby. In many cases the Forest Service would like to dispose of this land, but can find no one interested in a parcel with many encumbrances criss-crossing it. In short, the Forest Service would like to stay ahead of urbanization and concentrate on areas in the hinterland which are forest in character.

D. Reno, Nevada

1. Background

Located on the Truckee River in western Nevada, Reno is an important commerce and tourist center serving as a kind of gateway to the Tahoe area and as a point of goods supply to neighboring California.

In analyzing the growth of Reno, one must also include the adjacent city of Sparks. This is the result of two major factors. One is because the Sparks city boundary is directly adjacent to Reno's on two sides and there is no perceptible difference in the two areas. Secondly, is the fact that all urban planning in Washoe County is done by a regional agency so that Reno and Sparks are treated as a single entity.

The growth of Reno took a rather sudden leap in the period between 1962 and 1965. This was the result of an influx of military personnel and an active annexation policy. In 1962, the population was estimated at 55,000 and in 1965 a special census recorded 73,200. After this period, the military population began to leave, causing a temporary decline in population. However, county planners now feel that a more natural growth is occurring and estimate the current population to be at 75,000.

2. Section 10 Lands

a. Share of Section 10 Lands Suitable for Urban Development. The present size of Reno is 19,200 acres (30 square miles) of which approximately 8,500 acres or 44 percent is still vacant. According to the regional planning group, all of this undeveloped land is quite suitable for urban uses.

Beyond the existing Reno/Sparks corporate limits is a vast amount of additional vacant land which could also be utilized for a variety of activities. Some of this land, however, will not be suitable until proper flood control projects are undertaken. This is particularly true in the southeastern part of the area which will be ideal for residential development once this problem is alleviated.

In speaking with officials from both the Bureau of Land Management and the Regional Planning Commission, present ownership of these vacant areas does not offer any particular impediments to growth inasmuch as most of it is in private hands (with the exception of some Bureau of Land Management property in the north. See Section V ahead). Forest Service lands are quite distant from the urbanized area except for the Peavine Mountain area which has been designated as an Open Space Reserve, and there is no apparent interest in altering the status of this land.

b. Ten Year Disposition Pattern by Use.

The only significant amount of Section 10 lands which have been disposed of during the last 10 years consist of acreage administered by the Bureau of Land Management. Table XI-7 is a close estimate (exact figures were not available) of these sales. It is interesting to note that in only two cases has the land actually been utilized for active urban development in the form of housing and a church. The rest remains either vacant or used for park or grazing purposes. The parcels listed below do not necessarily fall within the Reno city limits, but are generally within the urban area.

c. Relative Prices Received by the Federal Government. The table ahead on recent sales gives price information.

3. State Lands

a. Share of State Lands Suitable for Urban Development. No estimates have been made on the amount of state-owned lands suitable for urban development nor have any state lands been sold in the Reno/Sparks area over the last 10 years.

4. Private Lands

a. Share of Private Lands Suitable for Urban Development. As indicated a large portion of the 30 square mile Reno area is still vacant (44 percent or 8,500 acres) and generally quite suitable for development. Most if it is in private ownership.

b. Ten Year Disposition Pattern by Use. The best way to obtain this information is to analyze all land use over time since so little acreage is in other than private hands.

In terms of overall changes in land use within the Reno/Sparks city limits over the last 10 years, there have been wide fluctuations in the percentage of various land uses. This has been due to annexation of large amounts of undeveloped land. As a result, it is difficult to ascertain any trends in land use patterns. Table XI-8 ahead presents land use data for Reno/Sparks over the last 10 years.

Table XI-7. Recent sales of public land in Reno/Sparks,
1959-1969.

Date	Acreage	Price	Sale Authority	Present Use
3/59	640	\$969/acre	Isolated Tract Act	None or Grazing
3/61	30	\$150/acre	Isolated Tract Act	None (Residential is adjacent)
6/63	157	No Price	Exchange of lands with Nevada Act. June 8, 1926	None
1963- 1964	63 (collec- tively)	N.A. ^a	Small Tract Act	Suburban Residential Uses
6/65	474	\$969/acre	Isolated Tract Act	None or Grazing
6/66	520	\$374/acre	Isolated Tract Act	Grazing
8/67	360	\$2.50/acre	Recreation & Public Purpose Act	County Park
8/67	175	\$2.50/acre	Recreation & Public Purpose Act	N.A.
9/67	154	\$2.50/acre	Recreation & Public Purpose Act	Recreation
1/68	20	\$2.50/acre	Recreation & Public Purpose Act	Church
4/68	2-1/2	\$1,600/acre	Public Land Sale Act (1964)	None
^a Not Available				
Source: Bureau of Land Management				

Table XI-8. Actual use of land in Reno and Sparks, Nevada.

	Sparks						Reno								
	1940			1955			1961			1965			1970		
	Acres	Percent of Total	Percent of Development	Acres	Percent of Total	Percent of Development	Acres	Percent of Total	Percent of Development	Acres	Percent of Total	Percent of Development	Acres	Percent of Total	Percent of Development
Total area	1207.00	100.0		1525.3	100.0		9259.3	100.0		11718.1	100.0				
Developed Area	876.30	72.9	100.0	1119.2	73.3	100.0	5813.5	61.3	100.0	7362.2	62.8	100.0			
Vacant Area	330.70	27.1		406.9	26.7		3445.8	38.7		4355.9	37.2				
Residential:		20.0	27.4	388.5	25.4	34.7	2352.9	25.5	40.0	3068.2	26.3	41.7			
Single Family	203.5	16.9	23.2	300.8	19.7	26.8	1991.7	21.5	34.3	2561.5	21.9	34.8			
Duplex	31.3	2.6	3.6	39.2	2.5	3.5	136.4	1.5	2.3	143.9	1.2	2.0			
Multiple	5.6	.5	.6	29.8	2.0	2.7	123.3	1.3	2.1	216.3	1.9	2.9			
Trailer	-	-	-	18.7	1.2	1.7	111.5	1.2	1.9	146.5	1.3	2.0			
Public:		13.0	17.8	174.3	11.5	15.7	1516.1	15.5	25.8	1740.8	14.8	23.6			
City, County & Fed.	.3	.1	.1	2.3	.2	.2	25.1	.1	.1	52.0	.4	.7			
State	142.2	11.8	16.2	142.2	9.3	12.7	167.5	1.8	2.9	357.8	3.0	4.9			
Park	7.2	.6	.8	12.4	.9	1.2	142.9	1.6	2.5	218.3	1.9	2.9			
School	6.1	.5	.7	17.4	1.1	1.6	954.4	10.3	16.4	856.1	7.3	11.6			
Churches and/or private schools; meeting halls	1.1	.1	.1	3.1	.2	.3	145.4	1.6	2.5	162.1	1.4	2.2			
							80.8	.1	1.4	94.5	.8	1.3			
Other:		39.8	54.7	552.5	36.2	49.3	1934.5	20.3	33.6	2553.2	21.7	34.7			
Commercial ^b	36.1	3.0	4.1	48.4	3.2	4.3	354.4	3.8	6.1	515.1	4.4	7.0			
Industrial	18.8	1.6	2.1	28.6	1.9	2.6	220.2	2.4	3.8	302.7	2.6	4.1			
Railroad ^a	177.1	14.7	20.2	177.1	11.6	15.8	68.7	.1	1.2	82.7	.7	1.1			
Streets & Alleys ^c	243.7	20.2	27.9	295.1	19.3	26.3	1183.4	12.8	20.6	1506.9	12.8	20.5			
Water ^d	3.3	.3	.4	3.3	.2	.3	107.8	1.2	1.9	145.8	1.2	2.0			
Population ^f	7,435			11,741			55,658			73,200					
Density per tot. area ^g	6.16			7.7			6.0			6.2					
Density per dev. area ^g	8.48			10.5			9.6			9.9					
Tot. dwelling units ^h	-			-			-			-					

^a 1948-55-91 Railroad right of way classified as railroad on the basis of a 100' strip through Reno; other railroad property classified as used.

^b 1961 - Private parking lots, power substations, and offices classified commercial.

^c 1948-55-61 Lands in freeway path appear in use categories, not as highways.

^d 1948-55-61 Water total does not include ditches or private fish ponds.

^e 1961 - Structures used commercial on ground floor and residential on upper floor classified as commercial, but such dwelling units counted as dwelling units.

^f Persons per acre Ushoe County.

^g Percentage of population.

Source: City of Reno.

c. Relative Prices Received by Private Owners.

Private land in Reno/Sparks has increased in price from 7 percent to 15 percent per year over the last 10 years (except for residential land over the last three years), depending on type of use. Present pricing structure is discussed below.

Unlike most cities, residential location in the City of Reno doesn't seem to play the major role in the price of land. Instead, cost is based on the size of the residential parcel to be developed. For example, a block of land to be developed with 6,000 square foot lots will run around \$6,000-\$7,000 per acre, whereas a raw parcel to be subdivided into large lots of at least one acre may run from \$10,000 to \$12,000 per acre. The determination of lot sizes is of course, based on zoning requirements.

As was mentioned above, the rise in residential land prices for single family dwelling leveled off about three years ago. This stabilization is attributed to the tight money situation which has prevailed throughout the United States over this period.

The demand for multiple family dwellings has been very minor in the Reno/Sparks area until the last year or so, even though land prices have continued to rise approximately 7 percent per year to the present time. A subdivided multiple family dwelling lot will run from \$1.50 to \$2.50 per square foot, depending on location. Raw land in this category currently costs approximately \$16,000 per acre.

The commercial picture in Reno/Sparks is quite unusual due to the casino operations. Location is the major determination of price and is based on proximity to the major gambling center (which is downtown and includes the famous Harrah's Club). Thus, land prices on Virginia Avenue in this vicinity may range from \$40 to \$100 per square foot. Large outlying shopping center parcels have gone for as little as \$2.15 per square foot, and smaller outlying commercial properties are usually priced around \$3.00 per square foot.

The industrial activity in Nevada and particularly Reno has consisted primarily of warehousing. This is due to the Nevada Freeport law which allows tax-free storage of goods. Thus, companies doing business in California find it cheaper to transport large quantities of goods across the state line, than to pay the California inventory tax.

As a result, prime industrial land is rail oriented and prices run around \$2.50 per square foot. Airport industrial land runs between \$1.00 and \$1.50 per square foot and raw outlying land may be acquired for as little as \$.80 per square foot.

5. Problems Associated with Urban Expansion and Federal Lands

Federal holdings on the land directly north of Sparks' current direction of growth may become a problem if the Bureau of Land Management cannot eliminate mining lease-holds which presently cloud their title. Four hundred acres in this area are suitable for residential purposes and 1,200 acres could be readily used for recreation. The Bureau of Land Management has indicated that it would be more than willing to dispose of this acreage under the Public Land Sales Act of 1964, but is unable to do so because of encumbrances brought about through the provisions of the Mining Act of 1872. At present the Act precludes elimination of these old mining claims without expensive and elaborate legal proceedings.

As yet there has been no strong development pressure for the residential land, but it is bound to occur inasmuch as the land slopes gently upward from the Reno basin and offers the potential for good viewsite homes. Meanwhile the Bureau of Land Management officials are waiting for Congress to act.

E. Salt Lake City, Utah

1. Background

The City of Salt Lake is but one small portion of the greater Salt Lake Metropolitan Area (Salt Lake County) which has a current estimated population of 465,000. Therefore, for purposes of this study, the basic area of concern will be Salt Lake County.

During the next 20 years, substantial portions of the Salt Lake Valley will be developed in order to accommodate the expected population growth. Analysis of past population trends, the age composition of the present population, and projections of growing employment opportunities, indicate that the population of Salt Lake County will be about 789,000 in 1985. Approximately 53,000 of this increase in residents is expected in Salt Lake City and 350,000 in other parts of the County.

A major effort in the Salt Lake County Master Plan has been to analyze the physical setting and the population pressure to determine if and where expansion could occur.

Three major physiographic regions converge to form Salt Lake Valley. The dry, desolate, rugged Basin and Range lies to the west, the Middle Rocky Mountains extend north and east, and the Colorado Plateau

extends south and east. The Valley is formed on the east by the Wasatch Mountains (Wasatch National Forest) which rise abruptly from the 4500 foot Valley floor to 11,000 feet above sea level. The Wasatch Mountains intercept the moisture bearing westerly winds, resulting in precipitation at the higher elevations, which becomes the water supply for the urbanized area below. To the north the Valley is partially enclosed by a spur of the Wasatch, and the Traverse Mountains form the barrier at the south. The western limit of the Valley consists of the Oquirrh Mountains whose peaks rise to 9,000-10,000 feet. To the northwest lies the Great Salt Lake and beyond that the Great Salt Desert.

The Valley area encompasses about 410 square miles of which only about 90 were used for urban purposes in 1960 (more recent land use is not available). With 79% of the developable land in the Valley either undeveloped or used for agriculture, there is ample opportunity for urban expansion. The Salt Lake City, Big Cottonwood, Little Cottonwood, and Valley Districts are committed to urbanization because of the present development patterns within the metropolitan area.

2. Section 10 Lands

a. Share of Section 10 Lands Suitable for Urban Development. Section 10 lands in the Salt Lake Area consist of the Wasatch National Forest. One of the directions of the urbanization which is not occurring, is along the front of Wasatch Forest. Salt Lake City limits abut the boundary of the Wasatch National Forest, and residential development has been moving up the foothills to the edge of the City/Forest boundary. Along the major portion of this front, National Forest lands begin at places where the terrain is far too rugged to be of value for home building. However, there are a few areas which are suitable and which the Forest Service will eventually exchange provided no additional flood danger will be created by the presence of residential development. These hill-side locations are among the most desirable in the Salt Lake area and as a result, prices are quite high. As the population increases, the pressures on the front will also increase but the County Planners and realtors to whom we spoke, regard the Wasatch Front as unencroachable and accept the increased land values that will occur as other available land is developed, and land becomes more scarce.

In summary, then, it can be concluded that there is plenty of privately held land available for urban expansion, although it is not necessarily

the most picturesque. Nevertheless, since sentiment is so strong to maintain or even extend the Forest ownership, little further disposition of the Wasatch Front for urban development seems likely or desirable.

b. Ten Year Disposition Pattern By Use. Very little Wasatch Forest land has been exchanged in the area immediately adjacent to the Salt Lake area over the last 10 years.

In discussing the role of the Wasatch National Forest in the development of this metropolitan area with local recreation officials, it was found that long-range program planning for park/land acquisition was based to a great extent on the presence of this natural area. The Park Department considers this national forest to be part and parcel of its overall recreation program. As a result, the need for regional parks does not exist. The Park Department, however, feels that the public has relied on this resource to too great an extent and the Department finds that they have a very difficult time in obtaining in-city sites for local or neighborhood parks which are definitely in short supply at the Salt Lake area.

Forest Service officials indicated that over 4,100 acres are under permit in the Wasatch Forest at the present time and there are a total of 800 permits now in effect. A number of these are urban in character. The following table gives the number of permits now in effect for occupancy uses.

Table XI-9. Wasatch Forest permits.

Uses	Number of Permits
Borrow Pits	8
Government Buildings and Facilities	2
Packer Station	1
Pipeline	9
Power Plant, Power Trans.	37
Radio, TV	4

Table XI-9. Continued

Uses	Number of Permits
Reservoir	27
Residence	221
Roads	43
Public Service	3
Stores, Shops and Offices	2
Telephone and Telegraph	9
Telephone Microwave Site	2
Warehouse, Storage Plant	3
Water Supply	6
Water Transmission	52
Oil and Gas Leases	307
Helicopter Service	2
Total	738
Source: U. S. Forest Service	

c. Relative Prices Received by the Federal Government. Since so few exchanges have occurred which relate to urban uses, no information is available on relative prices, connected with Section 10 lands.

3. State Lands

No information was available on the amount of State-owned lands suitable for urban development adjacent to the Salt Lake area. Nor were

there available records by which to determine state land disposition and prices received without extensive research at considerable cost.

4. Private Lands

a. Share of Private Land Suitable for Urban Development. The vast majority of the lands in the greater Salt Lake area are privately held. Determining the amount of land suitable for urban development is difficult to ascertain because land use data is very sketchy and topographic constraints have a definite effect on the actual acreage available. However, with the aid of the Salt Lake County Planning Department we have made estimates on the current amount of vacant land in the area. Table XI-10 compares all land uses in 1960 and 1967. It is estimated that just over 200,000 acres is still vacant or in agricultural use. Presumably, a large portion of this land is suitable for urban development.

b. Ten Year Disposition Pattern by Use. Table XI-10 also indicates the estimated increase by use for all lands. Almost all land is and has been in private ownership for the last ten years so that these changes show the disposition pattern by use.

c. Relative Prices Received by Private Owners. It is quite difficult to generalize about land prices for various uses in the Salt Lake area and the 10 year trend. However, of the five cities examined, Salt Lake is the largest and is the only one which truly approaches a true metropolitan character. As a result, the pricing of land and the value of land becomes a very complex matter. The most important variable, of course, is location. This is particularly true of residential and commercial land. In Salt Lake, industrial land seems to be a bit more consistent in price.

As indicated above, the most sought after residential land is in the hillside area around the Wasatch Front. In the last three years lot prices in this area have more than doubled, going from an average of about \$6,000 to anywhere between \$12,000 and \$19,000. The value of this area is based on its view, its easy commuting time to the central business district, and its proximity to the University. A \$12,000 to \$16,000 lot in this area would be about a 1/4 to 1/3 acre. By Salt Lake standards this would be considered a relatively high priced area.

Table XI-10. Salt Lake County land use, 1960 and 1967.

Land Use	1960 Acres	Percent	1967 Estimated Acres	Increase Decrease
Residential	24,061.5	8	29,210.5	+5,149.05
Commercial	3,175.7	1	3,855.2	+679.5
Industrial	11,869.8	4	14,409.9	+2,540
Parks and Institutions	6,711.4	2	8,147	+1,436
Streets	15,594.3	5	18,931.4	+3,337.1
Other Trans. and Utilities	<u>7,687.8</u>	<u>3</u>	<u>9,332.9</u>	<u>+1,645</u>
Total Devel- oped Land	69,100.6	24	83,886.05	+14,786.65
Agriculture	105,753.3	37		
Vacant	<u>109,049.1</u>	38	200,016.9 ^b	-14,786.65 ^b
Total	283,902.9			

^a This estimate is based on a population growth of 17% during the period and a corresponding increase in all uses.

^b Agriculture and vacant combined.

Source: Salt Lake County Planning Department, DMJM Economics.

As the hills become saturated and the prices rise too high for the average family, housing development will likely extend in the southwesterly direction, where residential land values are lower. At the present time the realtors to whom we spoke estimate that there is a present differential in comparable housing at about \$5,000 between the eastern bench area of the city and the land in the southwest portion of the metropolitan area.

In terms of apartment demand, high density development is occurring in the Salt Lake City area closest to the central business district. Demand for this kind of housing has been rather limited in past years but as the city of Salt Lake takes on the character of a major metropolitan city it is expected that more and more apartments will be needed.

In fact, and by design, the central business district of Salt Lake City is still the center of the urbanized area. It is intended that the pattern will remain the same but that several community shopping centers will be developed to accommodate residential growth. As a result, prices are quite high in and around the central area. A recent sale to Sears & Roebuck of 3/4 acres in the center of town brought \$150,000. The more usual price, however, for commercial ground from two to three miles outside of the central business district is between \$25,000 and \$30,000 an acre.

As with commercial land, the closer the industrial land is to the center of town the more valuable it is likely to be. However, major industrial development is now being directed toward the southwest part of the metropolitan area. This land seems to be going for \$10,000 to \$11,000 per acre, whereas land closer to the central district could bring as much as \$25,000 an acre. On the other hand, land located to the far western portion of the metropolitan area can be obtained for as little as \$2,000 an acre.

5. Problems Associated with Urban Expansion and Federal Lands

The major problem connected with federal land is not based on the desire by private developers or city officials to expand urban development into the area. Rather, it is based on the problem of trying to manage the existing forest land so that the urban area below can survive and flourish. The Salt Lake metropolitan area is partially dependent upon the goods, products, and services of forest land. Produced on the soil of the National Forest is timber, forage for livestock, and wildlife for sporting and recreation purposes. In addition, the entire

water supply of the Salt Lake metropolitan area comes off the mountain sides of the Wasatch National Forest directly adjacent. Not only is the actual supply of water essential to the city, but control of rapid runoff is also vital. The greatest pressures are now being caused by recreation needs, winter sports area (especially the areas of Alta and Brighton). This increased use, up some 300% in the past 15 years in the Wasatch, is putting more people onto the water shed in their recreation pursuits. At the same time these same people are more and more dependent on the goods and services that the lands can produce, the greatest of which is quality water.

Unfortunately, excessive urban development on hillsides often brings devastating floods, whereas previous past over-grazing as a cause of watershed denudation has largely been eliminated and controlled, and as indiscriminate and intentional burning has been confined, a new watershed threat has replaced these conditions -- namely subdivisions. Ironically, the denuded areas have been translocated from the mountain tops to the foothills and related problems remain the same as they were 40 years ago when flood control measures were developed on an intensive scale.

This situation will evidently continue into the future, with the greater number of people moving up the base of the mountains unless steps are taken to prohibit development or new techniques are employed to eliminate the hazards created by residential encroachment. Fire continues to be the rudder that maintains a collision course with disaster. A small flood now has a much greater impact on life and property than it did 40 years ago.

This is not to say that there is conflict or disagreement between the Forest Service and the forces in the metropolitan area. Rather, these generalized problems are stated merely to indicate the pressures and considerations that are essential to understanding the situation in Salt Lake City, a situation where a metropolitan city is adjacent to the forest which, in a sense, supplies the lifeblood to that city. The residents of Salt Lake City are becoming increasingly aware of the necessity of preserving the forest area and maintaining a good management program. In our discussions with many members of the community we found no real pressure to acquire National Forest land for other uses. Rather, there is a growing preference for the Forest Service to acquire and hold even more land than they had originally anticipated. Planners were confident that orderly development could occur in the flat areas that would be desirable, and economical. There is no doubt that the prices will continue to rise in the hillside areas of Salt Lake, but this is a fact of life which no one seems too bothered about. The value of

public land in these areas for its public use and benefit is obviously considered high, offsetting the pressure of some private citizens to acquire and develop it.

IV. SECTION 10 LAND DISPOSALS FOR URBAN OCCUPANCY 1953-1967

Recent trends in Section 10 land disposals for urban occupancy are an important factor in evaluating present disposal policies.

The following discussion will examine, by disposing agency and location, the acreage in Section 10 lands disposed for urban occupancy during the period 1953 to 1967 authorized by the following laws:

Small Tract Act

Recreation and Public Purposes Act

Public Land Sale Act

Townsite Laws

General Forest Exchange Act of March 20, 1922

Weeks Law Exchange Act

Bankhead Jones Act

Forest Service Omnibus Act of October 23, 1962

Trends in the number of applications requesting Section 10 lands for urban use indicate past and present demand. This information was not provided by the reporting agencies, as it would have involved a case-by-case review at great cost of time and money. The analysis is restricted, therefore, to acreage actually disposed for urban use. The Bureau of Land Management reported disposals for the 15-year period 1953 through 1967. The Forest Service reported disposals for the 10-year period 1958 through 1967.

A. Land Disposed for Urban Occupancy by the Bureau of Land Management 1953 - 1967

The following four laws governed Bureau of Land Management disposals for Urban Occupancy during the 15-year period from 1953 to 1967:

Small Tract Act

Recreation and Public Purposes Act

Public Land Sale Act

Townsite Laws

Total disposals in the States and Regions under all four laws and for the entire period amounted to 250,641 acres. Of this acreage, 45 percent was disposed under the Public Land Sale Act, 43.3 percent under the Small Tract Act, 11.4 percent under the Recreation and Public Purposes Act and less than 1/2 of a percent under the Townsite Laws. The greatest disposal in any one year was more than 31,000 acres and the smallest amount was under 7,400 acres. Average annual disposals under the four laws was 16,700 acres. It should be noted that disposals were highest during the 5-year period from 1958 to 1962 and lowest during the 5-year period from 1963 to 1967.

1. Small Tract Act

Table XI-11 shows that disposals for urban occupancy under the Small Tract Act 98,349 acres were concentrated in Arizona, California and Nevada. Disposals in all three states reached a peak in 1959-1960 and greatly declined through 1967 when there were no disposals in Arizona, only 49 acres in California and 20 acres in Nevada. The same trend is seen in disposals for all states combined.

There were no disposals for urban occupancy under the Small Tract Act in Oregon, Washington, and only 9 acres were disposed in the Eastern Census Regions.

Total acreage disposed in Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming combined amounted to slightly less than 10 percent of all Small Tract Act disposals for urban use during 1953 to 1967, with disposals in New Mexico constituting the greater portion.

2. Recreation and Public Purposes Act

Table XI-11 shows that the total disposals under this act for the 15-year period amounted to 28,645 acres, slightly more than one-third of which were in California. There were no disposals reported and/or available for Idaho, Oregon and Washington. The Eastern Census Regions ranked second with 5,007 acres. New Mexico was third with 4,728 acres and Arizona was fourth with 3,627 acres. In general, disposals were evenly distributed throughout the 15-year period with 2 peak years in 1960 and 1964. There were no disposals reported until 1955.

3. Public Land Sale Act ^{5/}

Disposals under this law amounting to 112,838 acres were higher than any other law. It is interesting to note, however, that nearly 85 percent of this acreage was disposed in Wyoming. New Mexico and the

Table XI-11. Disposals of Section 10 land for urban occupancy by Bureau of Land Management indicating applicable law, year and geographic area, 1953-1967.

Year Disposed By Law	Acres Disposed by Geographic Area ^a										
	Arizona	California	Colorado	Idaho	Montana	Nevada	New Mexico	Utah	Wyoming	Eastern Census Regions	Total United States
Small Tract Act ^b											
1953	214	239	8	1	160	60	35				717
1954	2,896	412	16	4		167	106		10		3,611
1955	2,896	943	35			1,140	161	5	85		5,265
1956	3,026	2,357	34	8		6,470	176	5	83	5	12,164
1957	3,026	3,629	45	10		6,300	573	5	25		13,613
1958	4,080	3,033	171	9	10	4,050	1,269	10	55		12,687
1959	5,866	4,218	177	34	5	5,420	1,249	172	142		17,283
1960	6,126	4,176	138			8,420	681	204	78		19,823
1961	1,617	4,051	130			3,210	346	43	69		9,466
1962	1,277	1,053	149	1		2,670	444	7	46		5,647
1963	285	503	125	6	15	1,750	1,496	25	83		4,288
1964	324	436	87			880	350	5	86		2,168
1965	168	413	88	9		200	225		5		1,108
1966	5	154	118			120	35		10		442
1967	n/d	49	72			20	11		21	4	177
1953-67	31,806	25,666	1,393	82	190	40,877	7,157	481	798	9	108,459
Recreation and Public Purposes Act											
1953											
1954											
1955					19			20			39
1956	1,519 ^b	4			33			90			1,646
1957	1,519	120				210		235			2,084
1958	120	244				34	78	45	841	627	1,989
1959		120	5		35	289	471		296	633	1,849
1960		1,699	40		40	3	357	254	160	1,288	3,841
1961		1,156			37	110	510	10	56	120	1,999
1962	258	209	40			40	100	40	83	80	850
1963	68	2,205				81	42	149	10	110	2,665
1964	80	2,103	99		651	471	140	22	159	659	4,384
1965	40	1,689	40		329	177	17		21	420	2,733
1966	21		5		35	42	737	17	51	1,009	1,917
1967	2	182			10		2,276		118	61	2,649
1953-67	3,627	9,731	229	n/d	1,189	1,457	4,728	882	1,795	5,007	28,645

^a Data not available for Washington; only 10 acres reported in Oregon for 1967 under Townsite Laws.

^b Acreage estimated by reporting agency for California, Nevada, and years 1955 and 1956 in Arizona.

n/d = No Disposals.

n/a = Data Not Available per agency report.

Source: Bureau of Land Management as supplied through the Public Land Law Review Commission.

Table XI-11. Continued.

Year Disposed By Law	Acres Disposed by Geographic Area ^a										
	Arizona	California	Colorado	Idaho	Montana	Nevada	New Mexico	Utah	Wyoming	Eastern Census Regions	Total United States
Public Land Sale Act											
1953									8,329	668	8,997
1954									9,878	4,098	13,976
1955									8,331	2,921	11,252
1956									3,588	120	3,708
1957									6,216	447	6,663
1958									5,791	40	5,831
1959									6,053	202	6,255
1960									7,636		7,636
1961							271		2,758	80	3,109
1962							2,141		7,395		9,536
1963							40		6,302		6,342
1964							2,089		9,817	130	12,036
1965							1,910		5,110	40	7,060
1966							828		4,144		4,972
1967						157	911		4,397		5,465
1953-67						157	8,190		95,745	8,746	112,838
Townsite Laws											
1953		50		11	n/a						61
1954	8	17			n/a					10	35
1955		3			n/a						3
1956		2	3		n/a						5
1957					n/a						
1958					n/a					10	10
1959		28	74		1					10	113
1960		6	2		9						17
1961		7									7
1962		14			18					2	34
1963		12									12
1964		1		74							75
1965	29	1		80		65			62		237
1966	17	6				36					59
1967	1	4						6		10	31
1953-1967	55	151	79	165	28	101		6	62	42	699
^a Data not available for Washington; only 10 acres reported in Oregon for 1967 under Townsite Laws.											
n/d = No Disposals.											
n/a = Data Not Available per agency report.											
Source: Bureau of Land Management as supplied through the Public Land Law Review Commission.											

Eastern Census Regions each had 7 and 8 percent of the total, respectively, and apart from the 157 acres disposed in Nevada in 1967, no other States benefited from disposal of Section 10 land under this Act. Disposals in the Eastern Census Regions occurred mostly within the first seven years of the 15-year period. In contrast, disposals in New Mexico were in the last seven years. Disposals in Wyoming were lowest in 1961 and greatest in 1954 and 1964.

4. Townsite Laws

Disposals under the Townsite Laws accounted for the least amount of acreage disposed by the Bureau of Land Management. There were no disposals in Oregon, Washington and New Mexico, and only 6 acres in Utah in 1967. The amount of acreage disposed in all geographic locations ranged from no disposals in 1957 and as low as 3 and 5 acres in 1955 and 1956 to as high as 237 acres in 1965. Idaho ranked first with 165 acres, 93 percent of which was disposed in 1964 and 1965. California was next with 151 acres, one-third of which was disposed in 1953 and the remainder unevenly distributed over the following 14 years. Nevada ranked third with 101 acres disposed between 1965 and 1966.

B. Land Disposed for Urban Occupancy by the Forest Service, 1958 to 1967

The following four laws governed Forest Service disposal (exchanges) for Urban Occupancy during the ten year period from 1958 to 1967:

General Forest Exchange Act of March 20, 1922

Weeks Law

Bankhead Jones Act

Forest Omnibus Act of October 23, 1962

Disposals under the General Forest Exchange Act constituted 31,124 acres or 97 percent of the total acreage disposed by the Forest Service during 1958 to 1967. See Table XI-12. Disposals under the Weeks Law and the Bankhead Jones Act combined totaled only 1,024 acres, approximately 3 percent of the total acreage disposed by the Forest Service for urban occupancy under the four laws. Disposals under these two laws occurred solely in the Eastern Census Regions. The least used law was the Forest Omnibus Act of 1962 which accounted for a total of 2 acres disposed in Utah and Idaho in 1966.

Table XI-12. Section 10 land disposed for urban occupancy by Forest Service indicating applicable law and acres by geographic area and year, 1958-1967.

Year	General Forest Exchange Act of March 20, 1922							Weeks Law Eastern Census Regions	Bankhead Jones Act Eastern Census Regions	Forest Omnibus Act of Oct. 23, 1962 ^a
	Arizona	California	Colorado	New Mexico	Utah	Eastern Census Regions	Total United States			
1958	212						212	9		
1959	50	19					69			
1960	7,707	158		80			7,945	11		
1961	1,297	601					1,898			
1962	1,536	290		3,600	1		5,427	42		
1963	3,858	612					4,470	39		
1964	3,045	679		240			3,964			
1965	2,789	840				19	3,648			
1966	1,348	527	70	255			2,200	414	159	4
1967	667	545		78	1		1,291	324	26	
1958-67	22,509	4,271	70	4,253	2	19	31,124	839	185	4

^a 2 acres in Idaho and 2 acres in Utah.

Source: U.S. Forest Service as supplied through the Public Land Law Review Commission.

In terms of geographic location, acreage disposed in Arizona constituted 70 percent of the total. California and New Mexico disposals accounted for 26 percent of the total with approximately the same amount of acreage (4,200) disposed in each State. Disposals in the Eastern Census Regions accounted for approximately 3 percent of the total (1,043 acres) and the remaining 1 percent was distributed in Colorado, Idaho and Utah. There were no Forest Service disposals for Urban Occupancy in Montana, Nevada, Washington, Oregon or Wyoming during the 1958 to 1967 period.

Footnotes

1. Hoyt, Homer, "Urban Growth in the Next 15 Years," According to Hoyt (a collection of articles), Homer Hoyt. 1966, p. 228.
2. Ibid, p. 223.
3. Abrams, Charles "The Uses of Land in Cities," Scientific American, September 1965.
4. Sales of \$2.50 per acre were made under the Recreation and Public Purposes Act.
5. Public Land Sale Act, under Section 14 of the Taylor Grazing Act not to be confused with the Public Land Sale Act of 1964.

CHAPTER XII

NEW COMMUNITIES

CHAPTER XII

NEW COMMUNITIES

This analysis of new communities provides the basis for determining the possible future role of the Government in establishment of new communities.

Two new communities were selected by the Commission (South Lake Tahoe, California and Richland, Washington) because of the extent of the Federal Government's involvement in their creation and/or development.

Interviews were conducted with experts at the National level as well as with members of each community, including Federal personnel, community administrators, planners, realtors, and appraisers.

I. DEFINITION

Before discussing new communities, it is appropriate to define the term. In review of all available literature and expert opinion, the following definition was found to provide a succinct and complete description. Its source is a recent Intergovernmental Relations Commission report entitled Urban and Rural America: Policies for Future Growth.

"New communities are large scale developments constructed under single unified management, following a fairly precise inclusive plan, and including different types of housing, commercial, and cultural facilities, and amenities sufficient to serve the residents of the community. They may provide land for industry or are accessible to industry, offer other types of employment opportunities and may eventually achieve a considerable measure of self-sufficiency. With few exceptions new communities under development today are within commuting distance of existing employment centers."

Of particular significance is the concept of an initial plan incorporating the ultimate geographic area of the community and providing for a predetermined population size. The effort to provide facilities and amenities at an early stage of development rather than as a response to population pressures is characteristic of new communities. Development of previously vacant land in unincorporated areas or by expanding existing small municipalities as to be outside of the normal process of subdivision or tract development is also typical.

II. NUMBER OF NEW COMMUNITIES CREATED AND AREA ABSORBED

According to U.S. Housing and Urban Development reports, during the Spring of 1968 there were some 447 planned communities on the drawing boards or in some stage of development across the nation. These communities varied in size and estimated final population.

Because of the nature of available data, it was not possible to determine by size class the acreage absorbed in these communities over the last 15 years. Table XII-1, however, summarizes the 447 communities by estimated total population at completion and by planned acreage. Of the 447 communities, 322 listed planned acreage totaling 1.7 million acres or an average of 5,200 acres each. A further analysis of this data further refined the list to exclude resort or retirement communities and communities with a projected population of less than 15,000. These are presented in table XII-2. Seventy-nine new communities are listed in this table with a total planned size of 876,708 acres. The average size is 11,847 acres, but the sizes range from 1,100 to 92,000 acres.

Table XII-1. Distribution of planned communities by projected acreage and population, Spring 1968.

Number of Acres	Population												
	Data Not Available	4,999 and Under	5,000 to 9,999	10,000 to 14,999	15,000 to 19,999	20,000 to 24,999	25,000 to 29,999	30,000 to 39,999	40,000 to 49,999	50,000 to 74,999	75,000 to 99,999	100,000 and Over	Total
Data Not Available	105	5	6	1	3	0	1	0	0	1	2	0	124
499 and Under	60	19	16	4	1	0	1	0	0	1	0	0	102
500-999	28	7	8	1	1	0	0	0	0	0	0	0	45
1,000-1,999	24	0	5	10	4	1	2	0	1	0	0	0	47
2,000-2,999	9	0	2	0	4	2	0	5	1	1	0	0	24
3,000-3,999	10	0	0	0	2	0	2	4	1	0	0	0	19
4,000-4,999	6	1	0	0	0	0	0	1	1	1	0	0	10
5,000-5,999	12	0	0	0	2	0	0	3	2	1	0	0	20
6,000-6,999	3	0	0	0	0	0	0	2	0	3	1	0	9
7,000-7,999	0	0	0	0	0	0	0	0	0	2	0	0	2
8,000-8,999	0	0	0	1	0	0	0	0	1	0	3	0	5
9,000-9,999	1	0	0	0	0	0	0	0	0	0	1	0	2
10,000-12,499	1	0	0	0	0	1	0	1	0	3	2	2	10
12,500-14,999	1	0	0	0	0	0	0	0	1	1	2	1	6
15,000-19,999	1	0	0	0	0	0	0	0	0	2	2	1	6
20,000-24,999	2	0	0	0	0	0	0	0	0	0	0	1	3
25,000 and Over	5	0	0	0	0	2	0	0	0	0	1	5	13
Total	268	32	37	17	17	6	6	16	8	16	14	10	447
Source: U.S. Department of Housing and Urban Development.													

Table XII-2. New communities, 1959-1969.

Name	Location	Acres	Projected Housing Units	Existing Housing Units	Projected Population	Estimated Present Population	Year Construction Began	Industrial Acres	
								Planned	Existing
<u>Arizona</u>									
Goodyear Farms	W. of Phoenix (15 mi.)	13,000	N.A. ^a	N.A. ^a	50,000	N.A. ^a	1964	N.A. ^a	N.A. ^a
Lake Havasu City	Lake Havasu	13,000	15,000	600 ^b	60,000	N.A. ^a	1963	N.A. ^a	N.A. ^a
Litchfield Park	W. of Phoenix (18 mi.)	13,000	22,000	1,200	75,000	N.A. ^a	1965	N.A. ^a	N.A. ^a
New Tucson	E. of Tucson	16,500	N.A. ^a	N.A. ^a	100,000	N.A. ^a	1964	N.A. ^a	N.A. ^a
Tucson Green Valley	Pima County	10,000	N.A. ^a	500 ^b	25,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>Arkansas</u>									
Cherokee Village	Hardy County	11,000	20,000	1,100	30,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>California</u>									
Avalon	Catalina Island	47,000	10,000	N.A. ^a	20,000	N.A. ^a	N.A. ^a	0	0
Calabasas Park	Los Angeles	2,830	4,000	271	15,000	0	1967	110	0
Conejo Village	Ventura County	11,000	35,000	8,910	87,000	32,000	1953	850	350
Diamond Bar	Pomona	8,000	43,000	2,500	100,000	10,000	1961	60	14
El Dorado Hills	Sacramento County	9,800	22,034	500	75,000	2,000	1960	254	0
Foster City	San Mateo	2,700	11,000	2,530	35,000	7,000	1964	310	0
Golden West Paradise	Placerville	3,500	N.A. ^a	N.A. ^a	5,573	N.A. ^a	1961	N.A. ^a	N.A. ^a
Golden Hills	Kern County	4,300	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	75	N.A. ^a
Irvine Ranch	Orange County	83,000	100,000	2,390	250,000	7,000	1964	4,556	1,000
Laguna Niguel	Orange County	8,300	10,000	2,000 ^b	40,000	4,900	1964	454	710
Marinello	Marin County	2,138	7,483	0	20,000	0	1968	164	0
Mission Viejo	Orange County	11,281	29,711	1,500	68,000	5,500	1964	463	0
Porter Ranch	Los Angeles	4,093	9,278	1,500	39,000	4,000	1964	0	0
Rancho Bernardo	San Diego	5,400	12,802	1,293	35,000	4,000	1963	726	114
Rancho California	Riverside County	87,500	N.A. ^a	100	400,000	N.A. ^a	1965	N.A. ^a	N.A. ^a
Redwood Shores	Redwood City	1,342	6,964	244	20,500	0	1967	0	0
San Carlos	San Diego	5,000	9,000	4,500	35,000	20,000	1959	0	0
San Ramon Village	Walnut Creek	4,500	12,081	5,000	50,000	17,500	1959	488	71
Sierramonte	Daly City	N.A. ^a	15,000	3,750	N.A. ^a	12,000	N.A. ^a	0	0
University City	San Diego	14,000	35,000	200	42,000	640	N.A. ^a	N.A. ^a	N.A. ^a
Valencia	Los Angeles County	5,460	14,670	482	50,000	300	1966	1,020	0
Westlake Village	Ventura County	11,780	25,240	1,100	70,000	2,500	1965	500	110
Whitney Ranch	Placer County	12,000	35,000	350	110,000	1,120	N.A. ^a	N.A. ^a	N.A. ^a
<u>Colorado</u>									
Montbello	Denver	3,000	12,000	316	30,000	230	1966	N.A. ^a	N.A. ^a
Pike's Peak Park	Colorado Springs	4,300	N.A. ^a	N.A. ^a	30,000	N.A. ^a	N.A. ^a	0	0
Colorado City	S. of Pueblo	5,000	N.A. ^a	N.A. ^a	25,000	N.A. ^a	1965	N.A. ^a	N.A. ^a

Table XII-2. Continued.

Name	Location	Acres	Projected Housing Units	Existing Housing Units	Projected Population	Estimated Present Population	Year Construction Began	Industrial Acres	
								Planned	Existing
<u>Delaware</u>									
Mill Creek	N. of Wilmington	1,300	5,000	N.A. ^a	15,000	N.A. ^a	N.A. ^a	0	0
<u>Florida</u>									
Cape Coral	Ft. Myers	10,000	27,000	800	80,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Coral Springs	Ft. Lauderdale	10,000	N.A. ^a	N.A. ^a	60,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Lehigh Acres	E. of Ft. Myers	60,000	25,000	6,000 ^b	80,000	19,000	N.A. ^a	N.A. ^a	N.A. ^a
Marco Island	S. of Naples	6,700	11,000	225	35,000	7,100	N.A. ^a	N.A. ^a	N.A. ^a
Miami Lakes	N. of Miami	3,000	6,000	N.A. ^a	25,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Palm Beach Lakes	W. of Palm Beach	7,000	25,000	N.A. ^a	70,000	3,000	N.A. ^a	N.A. ^a	N.A. ^a
Port Charlotte	N. of Punta Gorda	92,000	N.A. ^a	N.A. ^a	100,000	15,000	N.A. ^a	N.A. ^a	N.A. ^a
Rotonda	N.W. of Palm Beach	17,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Saddle Ridge Estates	North Dale County	N.A. ^a	6,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
University Park	Bola Ratan	1,500	6,500	N.A. ^a	20,800	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>Georgia</u>									
Bonanza	Atlanta	1,200	3,500	275	15,000	830	N.A. ^a	N.A. ^a	N.A. ^a
Peachtree City	Fayette County	15,000	N.A. ^a	85	N.A. ^a	275	N.A. ^a	N.A. ^a	N.A. ^a
<u>Illinois</u>									
Elk Grove	N. of Chicago	4,000	10,000	300	45,000	1,000	N.A. ^a	1,000	N.A. ^a
Oak Brook	W. of Chicago	3,600	N.A. ^a	N.A. ^a	25,000	N.A. ^a	1961	N.A. ^a	N.A. ^a
Park Forest South	S. of Chicago	1,330	9,256	N.A. ^a	25,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>Kentucky</u>									
Oxmoor	W. of Louisville	1,100	N.A. ^a	N.A. ^a	15,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>Louisiana</u>									
New Orleans East	E. of New Orleans	32,000	N.A. ^a	750	175,000	2,000	N.A. ^a	N.A. ^a	N.A. ^a
<u>Maryland</u>									
Belair	Bowie	3,100	7,000	6,000	33,000	20,000	N.A. ^a	N.A. ^a	N.A. ^a
Belair Village	Bowie	2,400	7,000	N.A. ^a	35,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Columbia	Howard County	13,972	30,000	1,092	110,000	1,500	1966	1,325	60
Crofton	Ann Arundel County	1,400	3,700	N.A. ^a	9,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Marlton	Prince Georges Co.	N.A. ^a		4,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Montgomery Village	Gaithersburg	2,200	10,000	N.A. ^a	30,000	N.A. ^a	1966	N.A. ^a	N.A. ^a
Northampton	Prince Georges Co.	2,200	8,000	N.A. ^a	25,000	N.A. ^a	N.A. ^a	400	N.A. ^a
St. Charles City	Waldorf	8,000	30,000	N.A. ^a	80,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>New Jersey</u>									
Brookwood	Lakewood	2,000	3,500	N.A. ^a	15,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Panther Valley	Allamuchy	1,800	2,100	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a

Table XII-2. Continued.

Name	Location	Acres	Projected Housing Units	Existing Housing Units	Projected Population	Estimated Present Population	Year Construction Began	Industrial Acres	
								Planned	Existing
<u>New Mexico</u>									
Paradise Hills	W. of Albuquerque	8,500	27,000	N.A. ^a	80,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Rio Rancho Estates	Albuquerque	5,000	N.A. ^a	N.A. ^a	45,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>New York</u>									
Sterling Forest	Orange County	20,500	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>Oregon</u>									
Somerset West	W. of Portland	6,600	12,000	N.A. ^a	40,000	N.A. ^a	1964	N.A. ^a	N.A. ^a
<u>Texas</u>									
Clear Lake City	S. of Houston	15,000	40,000	N.A. ^a	150,000	N.A. ^a	N.A. ^a	3,500	N.A. ^a
Hilltop Lakes	Normanlee	6,000	3,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Horizon City	E. of El Paso	65,000	N.A. ^a	N.A. ^a	100,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Nassau Bay	Houston	5,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Prestonwoods Estates	Dallas	2,500	12,200	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Sharpstown	S. W. of Houston	4,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
Three Fountains	Houston	3,500	10,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
<u>Virginia</u>									
Reston	Herndon	6,750	24,885	1,443	77,500	3,000	1964	914	0
Ridgefield	Prince William Co.	3,000	N.A. ^a	N.A. ^a	35,000	N.A. ^a	N.A. ^a	N.A. ^a	N.A. ^a
		876,708	904,000		3,642,373				
^a Not Available. ^b Rented or sold only. Source: DMJM Economics.									

III. EXAMPLES OF PREVAILING MARKET PRICES FOR NEW COMMUNITY LANDS

Land prices vary so widely from place to place that it is impossible to view community land costs on a generalized basis. Values vary greatly depending on location, local standards such as street width requirements, street lighting requirements, existing sources of power, and water and sewage facilities. All have an important bearing on the actual cost of the land. In addition, negotiations and transactions dealing with the purchase of these lands is often either a confidential matter or quite complicated (because of financing intricacies), making actual determination of the value or price per acre difficult to obtain or misleading. Nevertheless, we have gathered a few examples of the prices received for new community land in the United States. These are prices paid for raw undeveloped land:

Columbia, Maryland	\$700.00 per acre (1962, now \$4,500 per acre for adjacent lands)
Eldorado Hills, Calif.	\$1,225 per acre
Foster City, Calif.	\$4,800 per acre
Porter Ranch, Calif.	\$4,500 per acre
Rancho Camerillo, Calif.	\$4,500 per acre
Reston, Virginia	\$2,000 per acre (1961)
Westlake Village, Calif.	\$2,550 per acre (1962)

IV. POPULATION PROJECTIONS FOR NEW COMMUNITIES IN THE UNITED STATES

According to the U.S. Bureau of the Census, the United States, including armed forces abroad, had an estimated population of 201,768,000 as of July 1968. Projections for the year 2000 are 335,977,000 people.^{1/} This means there is an anticipated population increase of 134 million people. Table XII-2 listing new communities with 15,000 and up population projects a total of 3.6 million inhabitants for the 79 new communities. This is an average of 46,000 inhabitants per community. However, if all 447 new communities indicated in Table XII-1, are developed over the next 30 years they would be capable of housing a total of 20.5 million people by the year 2000. This is approximately 15 percent of the projected population increase. Again assuming an average of 12,000 acres per community when completely developed, these 447 new communities will occupy approximately 5,364,000 acres of land by 2000.

V. INGREDIENTS FOR SUCCESS IN NEW COMMUNITIES

Measurement of success implies fulfillment of an objective. Therefore criteria is needed to measure success in terms of that objective. When speaking about the criteria for success, it is essential to understand what is meant by success. With respect to new communities, do we define success in terms of dollar profit or does success mean development of a satisfying urban environment, taking care of human needs? Are the two mutually exclusive? As far as the research team could determine, there have been few outstanding successes in existing new communities, using either definition. In fact, there were none that we could find which showed reasonable cash flow or profit. At the same time, few new communities offer an outstanding urban environment or housing product which is worthy of note. As a result, our assessment of what ingredients constitute success, for the most part, must be a reflection of past failures, research of relevant literature and speculation. It is essential to understand from the outset that new community development is not categorically unsuccessful. It is just that most projects are so new as to preclude judgment until completion. In many cases the potential for success still exists.

Another way of looking at success is the degree to which we are able to achieve an overall national dispersal of people through new communities, whereby the existing congestion and other urban ills are mitigated. The American Institute of Planners sees the creation of new communities as a necessary dimension in the urban experience. To their way of thinking, planned new communities represent a major alternative to increased aggravation of the problems of our central cities and to the inadequacies and inefficiencies of suburban sprawl on outer fringes of metropolitan areas. The Institute feels that new communities represent a unique opportunity to provide a physical and social environment as well as organized community activity that will more satisfactorily assist the Nation's citizens to achieve their full potential as individuals. A success objective of this type requires neither financial success nor environmental success from any individuals point of view. Success defined in these terms seems to achieve the greatest good for the greatest number, which may or may not result in a successful environment for anyone, but rather an efficient national settlement pattern. The discussion ahead focuses on all aspects of success and tries to set forth reasonable and practical criteria.

A. Planning

As a result of the large scale new community developments, private developers have generally hired city planning consultants to assemble

data, develop economic analyses, produce engineering feasibility studies, and prepare the physical design for the entire community. It now appears that this is vital to any massive effort to develop new communities because of the complexities and number of variables that bear on the ultimate construction of the community. However, in the past, one of the problems has been the inability to predict consumer acceptance and marketing success. Another major problem comes from high costs of development.

Another aspect which seems to have been neglected is the role of the planner in the management or executive staff capacity. The executives develop and recommend the budget; therefore they must control planning. Proper budgeting cannot be done without appropriate planning. In bringing planning directly under executive control both planning and budgeting would receive equal significance and would be formally interrelated.

Another shortcoming of planned new communities has evidently been inadequate citizen participation. If possible, potential residents should be engaged in the tasks of goal formation, review of final plans, and monitoring the development to determine how well the goals are being met. If it is impractical to deal with the actual residents then perhaps it is desirable to deal with people of the type who will move into the new city, or with members of the closest adjacent metropolitan area, from which the market for the new community is anticipated.

As mentioned above, improvements must be made in technical staff planning procedures. Two types of improvements can be made; first a wider dissemination of existing standards and innovative plan-making techniques is necessary. For example, one of the problems in developing new towns which are not really satellite communities is the difficulty presented by isolation. In this situation there is a necessity to solve the logistics problem of providing employment at exactly the same time as you provide the housing. That is, you can't build an industrial plant and have no place for people to live and in the reverse you can't simply build houses and have no place for people to work. The classical example of this problem comes from the experience of Reston, Virginia. Financial success of this new town was dependent on good access to Washington, D.C. until such time as an industrial base could develop. The only major highway route, however, was via the Dulles Airport road. This road, however, is under the control of the Federal Aviation Agency and they will not allow its use for Reston access. This has been a primary factor in the economic problem which has beset this new community.

From the governmental end of new community planning there is the necessity to utilize all of the development controls and incentives available to governing agencies. If such controls as the property tax, capital gains taxation, housing codes, official maps, ordinances, coordinating programs of all public facilities, etc., could be counted on for implementing new plans, the task of community development would be made much easier.

B. Industrial Base

One of the distinctions made between a "new community" and a "new town" is the presence or absence of industrial employment centers for the residents. (The new town has industrial development within its boundaries.) Americans have tried to restrict their definition of a true "new town" to an entity comparable to that which is familiar in the British experience. "A new town is an independent, relatively self-contained, planned community of a size large enough to support a range of housing types and to provide economic opportunity within its border for the employment of its residents. It is large enough to support a balanced range of public facilities and social and cultural opportunities. It is surrounded by a green belt of open space which serves to relate it directly to the surrounding countryside and to limit its size within a predetermined range regarding both population and area. Within reasonable limits, proportions of the total area to be used for industrial, commercial, residential, public facilities, and open space are specified during the planning process. The desired density of population overall and its relationship to open space are also provided for. New towns are started on previously undeveloped land and are built by staged development over a period of time."

With respect to "new towns" it has become apparent that nearby employment is an essential ingredient for success. One of the most serious drawbacks to successful development in the past was the inability or unwillingness to establish industry or other employment base prior to or at the same time housing is built. Typically, new town builders construct houses first, reserve industrial acreage and hope that industry will come later. One expert has said that the first element in development of a new town should be definite commitments on the part of specific industries or business firms to locate within the development. He also went on to indicate that new towns will probably be more successful and would have a better financial base if these industries would actually take on an equity position in the new town by private land developers or by large corporations. Unfortunately these large corporations, whose major interests are in other than land development, have not committed their firms to providing actual employment at the same time they are

engaged in this new land planning endeavor. This is not to suggest that we build company towns again, but rather to insure some basic employment which would then lead to the development of other service related employment sources.

With regard to new towns in isolated areas, another more insoluble problem appears. An industrial base is essential for the success of a new town in isolated areas. However, it is well recognized that it is difficult to get corporations to commit themselves to such an uncertain venture. In short, they aren't willing to go voluntarily. One expert has suggested that the only reason that the new towns in Britain have been somewhat successful is the ability of the British Government to move private industry to the new towns. This means provision of incentive, however incentives alone do not seem to be enough. What are needed are "disincentives" whereby the Government could discourage or prohibit large firms from building a new plant in the area where they were presently located. However, this would require a bold new approach which the American people are probably not ready to accept. Nevertheless, until national policies and regulations are developed on a massive scale, the possibility of developing successful isolated new towns seems remote.

C. Land Use Mix

Columbia, Maryland, one of the country's most publicized and apparently successful new communities, may offer some guidelines for an effective land use pattern. Columbia, when fully developed, will be composed of ten villages around a central urban core which will accommodate a total of 125,000 persons. Each village will contain five or six residential neighborhoods of varying style and diversity and schools, churches, parks, shops, offices, libraries and other business and services necessary for the convenience of 2,500 to 3,500 residents.

Columbia's town center, constructed in a setting of natural beauty will feature office buildings surrounded by parks and gardens and enclosed shopping malls which open off to theaters and restaurants, commercial buildings surrounding a town square, a lake front with cafes, theaters, gardens, marinas, hotels, a large park and college campus, and around the perimeter landscaped parking places. Buses will connect to various villages and town centers. Sites for research centers, light manufacturing plants, warehouses, and other types of businesses have been planned throughout the community.

D. Land Costs and Financing

If it is agreed that some kind of financial feasibility or profit is a prerequisite for success, then it must be possible to acquire land at much lower costs than are presently available. Sky-rocketing land prices militate against the most desirable characteristics and opportunities that new communities offer. They stand in the way of important goals such as conservation of natural beauty, topography, and other ecological conditions within a community. When land was cheap at the time the green belt towns were developed in the 30's, developers could afford to use it creatively; to skillfully follow the spirit of the topography, not building on the steep side of the valleys and using them instead for natural drainage. With increasing prices it has become cheaper to fill the valleys and bulldoze the hills, homogenizing the land as it were. It seems that the only direct way to lower land cost (as one element of the total costs for new town developments) is through some kind of Government subsidy program, whereby developers are reimbursed for the land cost or federal lands such as Bureau of Land Management or National Forest parcels are utilized and disposed of at below market prices.

A corollary to high land costs is financing in general. This phase of new community developments is a big stumbling block to more rapid and larger development at this time. Vast sums are necessary to put together enough land and to plan and develop the private housing, commercial, industrial features, and the public utilities and services necessary for a viable community. The Federal Housing Administration offers limited mortgage insurance guarantees to new town developers and now through the 1968 New Communities Act, they will guarantee up to \$50 million on any given project. However, many strings are attached to this program, including a provision that any new community qualifying under this act, must provide substantial amounts of housing for low income people.

Eikler and Kaplan in their book entitled The Community Builders said: "A community builder usually requires not only about \$10 million or more merely to initiate his development but additional sums every year for five years or more unless other methods of long term financing can be found." This start-up money is in addition to the purchase price of the land. A third aspect of this cost question is Federal tax laws. An owner of a piece of land which has risen in value (or is likely to rise) without any development on his part and who also is not a dealer in land, risks losing a capital gains position (25 percent of profit) in contrast to ordinary income tax rates if he chooses to undertake development. On the other hand there are both capital gains and

depreciation advantages to development if one can retain significant amounts of income property. In addition the principal investment disadvantage of a new community is demand for cash outlay for several years, which could be offset somewhat if the developer had other income from which his initial expenses in the new community could be deducted for tax purposes from his income. On balance, the tax advantages that accrue to community builders are not great. In tax terms it seems apparent that in order to encourage new developments at lower costs, it is necessary that Federal tax laws be adjusted

Insofar as this study is concerned, one of the most critical aspects of new community development is the location of these towns. The primary purpose of the Public Land Law Review Commission is to determine alternate policies and laws related to the disposition and management of Section 10 lands. Thus, the location of new communities on or near public lands becomes particularly important to this study.

Up to this point, all new communities in the United States have been satellite communities to major metropolitan areas. The major development in Los Angeles and Orange County and the San Francisco Bay Area are directly related to their respective urban cores. In many cases these communities are not self-sustaining and never will be because of the lack of an industrial base. Residents of these communities are commuting to established employment centers within the metropolitan area. The same is true with Reston, Virginia (adjacent to Washington, D.C.) and Columbia, Maryland, which is a satellite to the Baltimore Metropolitan Area. Even the retirement communities which have been established in the Arizona area, and in Southern California, are still fairly close to large metropolitan areas.

With the exception of the westward movement, the United States has had no recent experience with new towns which are truly isolated and self-sustaining with the possible exception of the atomic energy communities. One must look outside the United States to find any examples of new communities which could be thought of as self-sustaining, independent towns. Even these have had some serious problems. Two examples are Brasilia, the new planned capital of Brazil located approximately 500 miles inland from the coast, and Chandigar, India.

In contemplating the establishment of new communities located away from metropolitan areas, certain trends in population movement are occurring in the United States which may preclude a successful out-migration. One of these changes in the United States today is the movement away from the small towns and rural areas to major metropolitan areas. As a rule, this can even be narrowed to the perimeter

of the United States, that is, the coastlines. Our greatest population concentrations are developing along the Eastern Seaboard and the West Coast, as well as in some areas of Texas. The interior of the country is going through a depopulation. There are certain exceptions to this in some of the larger interior cities such as St. Louis and Denver. This is the result of several factors. One is climate. The interior of the United States typically has a much more severe climate and is subject to more extremes than one experiences on the coastal areas, with the exception of the eastern seaboard. In addition, there is a tremendous rise in the popularity of water oriented recreation. This is due to our increasing affluence and desire to participate in water sports (boating, water-skiing, fishing, etc.). The third factor, of course, is the economic magnetism of existing activities. It seems to follow that one activity begets another activity and there is a certain attraction provided by the existing metropolitan areas. This is, of course, based on increased opportunities for employment, and historical and traditional factors.

These phenomena, unless reversed by a conscious and subsidized national policy, do not offer much encouragement for the development of new isolated cities in the interior of the United States on public or private land. There is virtually no Section 10 land on the coasts (with the exception of several coveted National Forests in Oregon and California).

Much of the Bureau of Land Management land is arid desert and, without significant breakthroughs in water technology, would seem to offer little attraction for new communities.

With regard to new communities on the periphery of metropolitan areas, freeway links seem to be the major locational criteria. These new communities are dependent upon the existence and development of high speed freeways which have served to open large land areas and put them into close proximity to existing employment centers, cultural facilities, universities, and recreation areas. Some California examples include, Irvine Ranch (88,000 acres), Newhall Ranch (44,000 acres - Valencia), Mission Viejo (55,000 acres), and Janss - Conejo (10,000 acres). All of these new communities are 30 to 60 miles from the center of Los Angeles, but every one of them is bisected by, bordered by, or closely adjacent to a major freeway.

In addition to these access criteria, the Advisory Commission on Intergovernmental Relations has pointed out that the success of large scale urban developments whether they are entirely new communities or expansions of existing communities depends very much on local governmental land use policies and the capabilities of local government to

provide adequate public service and facilities. In many areas county government plays a key role in assuring balance between urban and rural growth centers. Thus, site location, in many cases, must be contingent on the attitudes and quality of the local jurisdictional agency.

VI. DESIRABLE SIZE AND POPULATION

The population range suitable for new communities is quite wide. All of our research has indicated that feasible new communities of various kinds could be developed with populations from 10,000 to well over a million, depending on the location and the objective for the particular community. It is essential, however, to determine in advance the proposed minimum population of the new community regardless of what size it is, in order to lay out the utilities, central business district, and other facilities required to meet the needs of the projected population.

Physical size and population are directly related to one another. One cannot think of new communities in terms of their physical size without talking about the population. Some critics have more clearly specified what they consider to be optimum sizes (population and acreage). The National Housing Committee on new towns suggests a minimum population of 75,000 and a minimum land area of 10 square miles. They feel anything smaller than that would be nothing more than a glorified subdivision or a new section of suburbia. The Committee feels that a new town of 75,000 people would be big enough to provide a range of cultural, shopping and entertainment facilities; economics, social and racial cross sections; and a labor supply and skills of diverse character for diverse industries, office employment and service, as well as domestic help. Such a population assumes that, while there would ultimately be other sources of jobs and facilities in other towns reasonably near, there would be a "day-to-day degree of self-containment so that there would be no daily peaks of traffic to one big center."

Buckminster Fuller and Constantine Doxiadis call for even larger new communities. They feel new communities should consist of a million or more population and be built far away from existing developments with jet airports and careful locations on truck-highway connections. The reasons given for development on such a scale are twofold. One is the sheer complexity of modern urban life and physical structure that demand a vast range of services to satisfy the modern urban dweller. The other is the economics of manufacture and marketing which demand, for such large industries, a large population.

VII. NEW COMMUNITY DEVELOPERS AND THE FEDERAL GOVERNMENT

In the discussion of desirable sizes of new communities, in terms of population and land required, it became evident that expert opinion varies greatly. Desirable populations ranged from 75,000 to over 1 million. This would call for developing tracts of at least 10 square miles and more. It is clear that the successful developing entities will necessarily be large and experienced and able to withstand long-term commitments without expectation of return for several years. These entities could include large corporations, private development corporations composed of several large corporations, non-profit organizations, such as a Communication Satellite operation, or public/private development corporations set up for specific projects. With the establishment of an overall policy related to new community development, it would be feasible for the Federal Government to work with any one or all such entities. In looking to such involvement, the entities that would be most practical for the Government to deal with would be those that are the most financially stable and capable of withstanding the long-term commitment necessary to new community development.

VIII. EXAMINATION OF TWO NEW COMMUNITIES

A. South Lake Tahoe, California

1. Background

South Lake Tahoe could be considered a new community only in terms of its recent incorporation date 1965. In reality, an active community has existed there since the turn of the century. The present full time population within the City Limits is 15,000 and the land surface of the City is approximately 8 square miles. (The City actually encompasses an additional 8 square miles on the lake.) Developed in connection with lumbering activities by five or six families, all but 360 acres within the present corporate limits of the City have always been in private hands.

In the last 10 years, the South Lake Tahoe area has become quite active as both a summer and winter resort. However, there have been several earlier periods of speculative subdivision, which have resulted in large numbers of undeveloped lots available at inflated prices. See

2. Land Use Patterns

Present use of the 8.4 square miles of land in the City are allocated as follows:

Residential	23.9%
Industrial/Commercial	3.2%
Streets	18.6%
Public	3.4%
Vacant	<u>50.9%</u>
	100.0%

There is plenty of room for growth without encroaching on public land. As noted above, half the land is still vacant and privately held.

3. Problems Related to Adjacent Federal Land

The City of South Lake Tahoe does not see a need for additional Forest Service land for urban development. On the contrary, City officials feel that too much such land is being disposed. In a recent letter to Chairman Aspinall, John Williams, City Manager, stated the City's position quite clearly:

"We are told that Lake Tahoe is a State and National asset. A public policy that does not maximize the public interest in this basin has got to be contrary to the public good. How can one federal agency spend millions for sewage disposal and treatment and another agency trade land for housing development, both within the same area? I believe that the federal government, through the Forest Service, should have an acquisition program whereby consolidation of Forest Service properties can be achieved without trading off existing Forest Service property within this state. Certainly, there are those federally owned lands within the basin that due to the development of private land surrounding them have had their desirability for inclusion in the Forest Service use plan rendered undesirable. However, these parcels of land should be made available to local governmental public agencies as surplus federal property for parks, open spaces, playgrounds and other public recreation uses. As far as Tahoe is concerned, you, Mr. Chairman, have an opportunity to do something that will be monumental in preserving and enhancing the environment of this area. If, in fact, this area is a State and National asset, far more State and National funds must be spent to take private land out of speculative development potential and place it in public control for future generations. The City is attempting to acquire as much land as it possibly can to maintain the beautiful meadows, the scenic vistas and open space areas that are now in private ownership and someday could possibly be developed. It is a monumental task, the costs exceed our local capabilities. To accomplish this goal we will be attempting to receive grants through Housing and Urban Development, Health, Education and Welfare, Conservation Land Water Funds, etc., to carry out our program."

In essence, the City feels that the Forest Service is concentrating on consolidating land in the "back woods" and using their low flat areas near the population centers and the lake as exchange parcels. The

City feels it is spending a good deal of money protecting the lake for everyone and cannot afford to acquire, hold and develop available Forest Service parcels for public use.

The Forest Service seems to operate within a framework of several factors which have the net result described above, that is, an inability to satisfy residents in the basin area. The Forest Service's assessment of the situation was stated quite clearly in its report entitled Multiple Use Management for National Forest Land; Lake Tahoe Basin:

"Some parcels of national forest land are now surrounded by private land which are rapidly becoming urbanized. Exchange of these parcels for land outside of these areas would facilitate administration. Purchase of land by the government offers another means of consolidation, but appropriations to implement acquisition authorizations have not been available. Considerable private land remains which might be well in public ownership to assure effective management of the watershed."

A prime objective of a land adjustment program is to consolidate National Forest ownership around the periphery of the basin. These lands are generally most valuable for watershed purposes and best suited for National Forest management. In addition, sufficient lake-side property should be obtained by public agencies to assure adequate public access to Lake Tahoe. Coordination of land management practices, within both states, is needed to minimize existing and potential conflicts in the uses and private and National Forest land.

The problem is thus quite clear. The City does not need or want more land in the hands of private developers. There is sufficient room to accommodate projected population. However, the City does need more parks, schools, localized campgrounds, open spaces and other public purpose areas. The Forest Service feels land above the basin has priority for acquisition. The only real available means of acquisition is to exchange. The basin lands have a very high per acre value, thus enabling the Forest Service to acquire a greater acreage of land more suitable for forest purposes and/or exceedingly expensive lake-front property for public beaches.

In addition, the Forest Service does not feel its proper role is in managing urban type recreation facilities and would probably be quite satisfied to have it in the hands of local public agencies for public purposes. The City must acquire National Forest land for this purpose via market value exchange procedures. The Forest Service has no

authority to dispose of National Forest land for less than fair market value such as the Bureau of Land Management has under the Recreation and Public Purposes Act. In addition, the Forest Service prefers to receive exchange land in the basin areas equal to the full value represented by National Forest land. The answers to these problems seems to be in providing:

- (1) Extension of the Recreation and Public Purpose Act to National Forest lands.
- (2) More state and Federal grants to the City from the Departments of Housing and Urban Development, Health, Education and Welfare, Agriculture and Interior to existing programs.

B. Richland, Washington

1. Background

Richland, Washington, like Oak Ridge, Tennessee; and Los Alamos, New Mexico, was built under emergency conditions. It was not developed with a stable master plan and no one was interested in what the future might bring for this quasi urban settlement. Its primary purpose was to house a large number of persons in isolated secrecy. There was no real intention to develop a balanced permanent community and it was only after 1947 in Richland, that any permanent type construction was begun.

Before 1943, the 640 square mile area (adjacent to Richland) later to become the Hanford Plant was a sparsely settled area of sand and sagebrush, broken only by small irrigated farm plants and orchards. It was an isolated area, far from densely populated cities, with few residents to be displaced. The Columbia River was an excellent source of large quantities of cold, clear water needed for cooling the nuclear reactors to be built. It was also a source of the area's abundant electrical power which the Hanford Plant needed.

The project was called the Hanford Engineer Works, avoiding any reference to its purpose. The Manhattan District of the United States Army Corps of Engineers, supervised construction and E. I. DuPont DeNemours, Inc. was the prime contractor. Three towns were included in the immense plant area. They were Richland, White Bluffs and Hanford. A wartime construction camp mushroomed around a cluster of village buildings at the Hanford Town site beside the Columbia River about 25 miles north of Richland. The original

population of the town was about 400. This swelled to 51,000 in a few short months and Hanford, though unknown to the rest of the world, was the fourth largest city in the State of Washington.

When construction of plant facilities was completed in 1945, both the camp and the town were abandoned as living areas. White Bluffs was also evacuated during the construction period. Richland, however, became the Administrative Center of the Hanford project. The entire town was taken over by the Federal Government as part of the project and the city was disincorporated. A whole new city planned for a population of about 16,000 was built in a few months.

The end of the war brought a period of uncertainty for the Hanford project and Richland. However, it was soon decided that the plant would continue in operation and would be expanded.

In 1947, a study was done by the Atomic Energy Commission on the feasibility of converting Richland to a normal town with home ownership and self-government. In 1948 the AEC determined that it was favorable toward disposal of the AEC operated city. At that time reorganization of accounting procedures and fiscal policies began in Richland. This included establishing a level of municipal services comparable to the upper quartile of the State of Washington of like size and character and separation of community operations from plant operations.

It wasn't an easy task, however. In 1952 the Wall Street Journal said,

"Richland, like Great Britain, is finding that it is a lot easier to dive into socialism than to wriggle free of it. Plans are underway, however, to turn Richland into an ordinary city. The next session of Congress is expected to finally free Richland from the federal apron strings. But meanwhile the first steps are kicking up an awful furor. Most everyone agrees that seven years of government ownership and controls has created a snafu that won't be easily untangled. The whole thing is shaping up as a one hundred million dollar headache for U.S. planners and taxpayers."

In February of 1953, the Advisory Council of the City of Richland began to hold a series of Town Hall meetings on such subjects as buying your house-tax assessment appraisals, property taxes, methods of financing purchases, priorities for purchasing, local improvement,

sidewalks, veteran's loans, etc., City services - cost of services, sources of City income, comparison with other cities, City bonds, etc.

Finally, in August of 1955, the Atomic Energy Commission Act was passed and signed by President Eisenhower. The law provided 5 years for Richland, Washington; and Oak Ridge, Tennessee, to become incorporated, assume all municipal functions and receive all property to be transferred. The first sale to the Richland residents was made in June of 1957. In 1958 the City was incorporated. By 1964 diversification had begun in order to eliminate the dependency of the town on the Atomic Energy Commission's activities.

2. Land Use Patterns

In terms of urban planning, because of its unusual origins, Richland has inherited several problems. First is the lack of a central business district. In a sense there are two business districts and since no plans were made for development of a major center, the city is now faced with developing some sort of central core area. Secondly, until the last year or so, Richland was quite dependent on the Hanford works. Now through a program of active diversification, this problem is beginning to see solution.

As a result of the haste and cost constraints presented by the wartime emergency, the city has inherited 1,200 prefabricated, poor quality houses which were never meant to remain. Because of the security problems and need for secrecy, the Federal Government wanted minimum commercial activity in the city of Richland itself. As a result major businesses developed in the adjacent communities of Pasco and Kennewick.

3. Problems

In addition to the physical peculiarities of the community, the population has several interesting attributes which are atypical. Firstly, is the fact that the crime rate in the area is exceedingly low. Since the original population had a 100 percent security clearance, the possibility of developing a criminal element was negligible. Seventy percent of the heads of households in the city still have the same security clearance. Most of the people presently living in the city are highly trained professional and technical people. They are all well educated and very interested in community affairs. Community apathy is not a problem. The average income is \$9,000 per household. The biggest major problem in Richland seems to be the threat of Government cut-back and the fear that the diversification is not far enough over the line

yet to insure security for the population. At the moment, the Tri-Cities Nuclear Industrial Counsel, (Richland, Pasco and Kennewick) is trying to draw more industry to the area. The AEC also aids in this effort. Since the three cities all have similar problems and are so close together, there is also a movement afoot to see if some sort of amalgamation is possible which could improve governmental efficiency.

Richland offers few lessons for new community development. Although the city is fully incorporated now and most of the land is in private ownership, the Atomic Energy Commission no longer exercises a paternalistic role in the management of Richland and in the financing of municipal services. The Atomic Energy Commission has provided financial assistance to the community and the school system during the transition period. However, should emergency funds be necessary, it is understood that the Atomic Energy Commission may make exceptions.

IX. MERITS OF NEW COMMUNITIES

A discussion of the merits of new communities must be based on the analysis presented in the previous sections including their definition, ingredients for success, pricing and desirable size.

What can new communities offer or what objectives can they best fulfill that are not possible through other types of urban expansion? One of the advantages offered by new communities is planned growth and expansion. The present congestion, pollution, traffic snarls, riots and discord found in our cities in great part are the result of haphazard growth. The Advisory Commission on Intergovernmental Relations, Urban and Rural America has defined new communities as "...large-scale developments constructed under single or unified management..." By providing a precise, inclusive plan, expansion can occur in an orderly fashion not as a result of population pressures.

Dispersion of the Nation's population can be achieved through new community planning. The population of the United States has migrated to the large central cities and adjoining suburbs not so much because the overall conditions are desirable but because that is where employment may be found. Dispersion of the population may be accomplished by planning self-contained communities that offer a balanced range of employment opportunities.

Another merit is availability of social and cultural amenities. In a new community recreational, social and cultural centers can be strategically located to serve a greater public. By planning access routes to such centers in advance of demand, the entire cross-section of the population will have an equal opportunity to benefit from these amenities.

A final, and perhaps most realistic merit of new communities is an economic advantage. By planning the growth stages of a community and making allowance for population expansion such areas as streets and transportation plans, utility layouts, zoning, etc. can be developed at much lower cost.

Planned new communities may offer a balanced, stable environment providing for the needs of a general population in an orderly manner as opposed to the haphazard expansion that has occurred in our older long-existing towns and cities.

X. THE ROLE OF THE FEDERAL GOVERNMENT

Inasmuch as the ingredients for the success of new communities under private developers has been somewhat uncertain, an entirely new approach to community development may be necessary. A logical place to make changes is in the role of governmental agencies. According to Robert Weaver, former Secretary for Housing and Urban Development, "It has become apparent that if there are to be new communities in this country, Federal financial involvement is required and social and economic diversification must be a condition for its availability." This statement was made by Mr. Weaver in reference to the New Communities Act of 1968, which provides loan guarantees up to \$50 million for each project, provided that low income housing is included as part of the plan.

The Advisory Commission on Intergovernmental Relations concluded that the establishment of large planned new communities which provide for industrial, commercial, and diversified residential uses including a range of housing prices adequately broad enough to include a proper balance of low income housing is not economically feasible without significant governmental subsidy.

The American Institute of Planners has made several recommendations regarding the Federal role in the development of a better urban environment. The Institute suggests:

- (1) A national policy on the desirable shapes of the American urban pattern and population distribution within it, for the immediate and long-term future coupled with programs and incentives sufficient to realize the program.
- (2) Enough Federal resource commitment (and complementary project evaluation and coordination where requested) to offer incremental incentives to greater levels of new community construction and a considerably more adventurous cooperative community interest with the private sector, the State and local governments, and those governments not yet in being within the new communities.
- (3) A hard objective of perhaps ten Federally aided new communities and town starts by 1972 with no fewer than four added starts in each year thereafter.

The Institute contends that we should not simply be talking about new Restons but about new Denvers of the West, other Atlantas in the South and new academic cities such as Ann Arbor, Michigan. They go on to state that a meaningful Federal program must give attention to the following factors:

- (1) Rapid land assembly before prices rise any higher.
- (2) Capture of enough venture capital able to wait for long range returns.
- (3) Viable community planning accommodating the developers and the new government.
- (4) Tight agreement as to employment and housing purchase opportunity for minority groups and those of the low and middle income bracket.
- (5) Clearly enunciated legislative language detailing the matter of national selection of new communities for Federal program support based on planned ratios of support from metropolitan and nonmetropolitan applicant locations.
- (6) Incentives for the use of new housing and community facilities design, and technology in the new communities particularly supporting rapid, sturdy and inexpensive construction.
- (7) A new community must be economically feasible, must contribute some programmed mix of investments and employment and therefore, must be region shaping in or outside of metropolitan regions in the economic sense as well as in the land design.

In his paper entitled, "Toward a National Policy for Urban Land Development", Herman D. Ruth made the following suggestion: "The state might encourage through special enabling legislation, the local development of new towns or satellite communities as a part of the total pattern for metropolitan growth..." Special aids for constructing public facilities and services, channelled through local agencies, could be established to assure sound physical and economic development. This approach would also imply a program for maintaining separation between the new towns and the metropolitan cores to various means of

open space and agricultural preserve, as well as appropriate incentives for creating employment opportunities. This alternative urban development policy program suggests State and Federal tax incentive, special financing legislation, coordination of public improvements, economic development programs, public land policies, and special chartering of costly public urban development corporations for the expressed purpose of acquiring suitable land for the complete planned development of new metropolitan cities in the population range of 500,000 to 2,000,000.

SECTION In connection with its work on new communities, the American Institute of Planners has recognized the fact that we have not been able to restrain people from moving to existing metropolitan areas. They call for what appears to be a rather strong national policy aimed at regulating the unlimited choice of each household to move to whatever area it wishes. "We strongly suggest enactment of an early minimum of three percent or 360,000 of all the moving households per year be located in new communities annually by 1970. We also emphatically propose that 15 percent of our new housing stock be constructed in bona fide new communities with the Secretary of the Department of Housing and Urban Development empowered to insure such performance through spirited supervision of the Federal Housing Administration, the Federal National Mortgage Association and various grant programs at his disposal for combined use to cover any gaps not already met by private or other development efforts." While the Institute has recognized that implementation of its policy of breaking up the current cycle and movement to already-established metropolitan areas would require firm legislative restrictions, such a course of action, could place severe strain on many deepseated and emotional American values connected with such things as freedom of choice and movement. Stated more bluntly, can we force a family to move to a specific location? Perhaps with enough enticements and incentives we can encourage relocation without resorting to such legislation.

One of the basic questions raised in the use and occupancy study has been to question the possibility of locating new communities on public land. We have seen that one of the major costs in new development is high land costs. Several people have indicated that disposition of Bureau of Land Management lands or Forest Service lands at below market value for the purposes of establishing new communities would substantially reduce the land cost factor. However, many people have criticized this as being governmental giveaway to private corporations. But one must only point to several other governmental programs which are based on a reduction in land cost. This is, of course, a form of subsidy. For example, urban renewal in our older cities

thrives to a varying degree on public subsidy of the acquisition price for land paid by private redevelopers. Evidently this has been justified over the years because there is a public need being met and this is the only way to get the job done. If urban new towns are of equal importance in the public need and lower land costs are needed to help them materialize, then it seems just as reasonable to subsidize private developers in new areas, if a larger public benefit will be met. Provision of public land for industry and housing developers might serve the public interest.

In addition, experience has demonstrated that there are certain social deficiencies in new town development that need remedial arrangements in the public interest. Up to now, private developers have been unable or unwilling in many cases to provide enough jobs for people who live in the new community; provide enough jobs for blue collar workers; provide low cost homes for lower paid workers.

At the present time new towns are not substantially alleviating the current social distress of the Nation. In general, they are benefiting the affluent. In many ways they are compounding the dangerous social cleavage which exists in America today. A new dispersal policy could complement the New Communities Act, which guarantees bonds, notes and other obligations issued to obtain capital to cover the lower cost of land in early development for new town developers prior to any return on investment.

The history of urban development in this country is based to a large extent on early disposition of Federal lands over the entire United States. However, there has never been a policy or authority which would enable public land to be made available to a corporate entity, public or private in large enough blocks for comprehensive planning and integrated development of a modern new town. According to Harold Jorgensen of the Bureau of Land Management:

"It is now seen in the public interest to enable this to take place, either in the spirit of creative federalism that would help local public corporations to do the job, or pursuant to the new concept of public interest partnership, under which neutral private and public interests might be served by aiding a private corporation variously subject to certain conditions to do the job. The basic essential is that the arrangements are such that the corporation would act as trustee pursuing various common interests of the community. In any case, there is a need for new urban policy in administering the Nation's public lands."

Before accepting this notion of disposition, several factors should be pointed out. One of the major considerations with respect to public lands is their location and natural character. For the most part large enough blocks of land are located at isolated places and consist of lands which (particularly in the case of the Bureau of Land Management consist of wide desert areas or extremely rugged terrain. National Forest lands, on the other hand, are somewhat better suited in many cases for urban development (with the exception of course of mountainous areas). In contrast with much of the Bureau of Land Management land, Forest Service land has more amenities in terms of vegetation and climate. However, we must consider with respect to Forest lands, that they are now being heavily used under principles of "multiple-use" established by the Forest Service. They are not simply there in a non-use status waiting to be developed.

Past experience with location and development of urban areas shows that it is a consequence of the interaction of history and geography. Much is dependent upon the advantage of a place in bringing together raw material, water, power, and skilled labor and affording access to suitable markets. These kinds of technical and human factors have determined almost with ironclad control the urban land use of the United States. This, of course, will continue to influence location of new communities. However, with changing needs and the possible availability of some Federal lands, we may be able to think in terms of reaching some kind of accommodation between these two factors. In short, with greater flexibility of transportation towns are less bound to a special location than they were before. As a result, the United States is now in a position of being able to have more choice in concentrating or scattering people, centralizing or decentralizing its most vital functions.

Because of the factors cited directly above and the other factors discussed with reference to general movement trends in the United States today, we should be careful not to overestimate the potential of public lands. The possibility of utilizing these lands must be examined more thoroughly. The use of public land for new community development would most likely be only a small factor in a total national urban policy. A more critical Federal role would likely emerge from governmental incentives to encourage (1) developers to undertake new community developments and, (2) industry to locate in such communities.

Footnotes

1. U.S. Bureau of the Census, Population Estimates, Series P-25, No. 381. (The series B projection was utilized to obtain the population figures quoted).

CHAPTER XIII

VACATION HOME USE

CHAPTER XIII

VACATION HOME USE

As part of the analysis of particular occupancy use problems, this chapter will determine and evaluate Federal policies and practices with regard to availability, conditions of use and charges applicable to vacation home sites on nonurban public lands. It will also compare these policies and practices with those of state and large and small private land owners in four states (California, Pennsylvania, Washington, and Wisconsin). Further, it will in general terms determine whether the supply of public lands will be sufficient to satisfy the demand at the prices now being charged.

It should be noted that it was also the intent of this chapter to study the cost of developing and administering vacation home sites on Federal lands and to relate that cost to the income derived from this use. This was not possible, however, as Government accounting practices have not provided for the detailing of revenues, expenses or even man-hours attributable to this type of special use permit.

Before proceeding with these analyses, it is necessary to define the term "Vacation Home" and outline the methodology used in the analyses that follow.

I. DEFINITION OF VACATION HOME USE

Vacation home use of Federal lands as used in this report refers specifically to private recreation-residence sites occupied by individuals and families under a Special-Use Permit issued by the Federal agency administering the lands. These sites are sometimes referred to as summer home sites, recreation home sites, or cabin sites. Only recreation use of the residences is authorized; use as a permanent home is not authorized. They may, however, be used for recreation at any time of the year.

Vacation home use of private lands has a less restrictive meaning. The category includes summer cottages and mountain cabins, but more recently has come to include any second-home or recreation-oriented residence, even when this use serves an interim purpose of holding the land and the improvement for retirement occupancy. If private lands

offered for vacation home use are located close enough to metropolitan areas or smaller employment areas, they may also serve as permanent residences.

II. METHODOLOGY

Information on vacation home use was obtained through interviews with administrative and field personnel of Federal agencies having jurisdiction over vacation home sites on public lands. Included were individual and group interviews in Washington, D.C. with U.S. Department of Interior and U.S. Department of Agriculture administrative personnel, and with field staffs of those agencies in each of the states selected for special study: Pennsylvania, Wisconsin, Washington, and California. The Federal agencies and their field offices provided reference data from their files, their directives and manuals, and from public hearings which were relevant to the task. They also provided data relative to case studies that are utilized in this and other sections of the report as well as information regarding problems and alternatives also covered in later parts of the study.

Field contacts were also made with state agencies responsible for the property management, resource management, and recreational development of state properties in each of the states selected for special study, as well as with active owners and developers of private lands for vacation home and second-home use in these states. Both the state agencies and private land owners provided published data and special file materials pertaining to their activity in their particular area.

In addition to the above, a mail questionnaire was sent to a cross section of 2,500 permittees of vacation home sites within National Forests throughout the contiguous United States to gather information on current practices of permittees, the nature and level of their investment, and their understanding of the conditions of their permit. A description of permittee families, including their income level, was included in the questionnaire. Additional information concerning this questionnaire is included in Appendix B. Pertinent information derived from it is included in the analyses that follow.

III. POLICIES TO PROVIDE LAND FOR VACATION HOME SITES

The Federal Government, some states, counties, and occasionally other local Government jurisdictions, have had or do have policies of offering publicly-owned land to individuals on a permit or lease basis for the purpose of constructing a vacation home. Private holders of

large acreages of forest or water-oriented properties also offer leasing arrangements similar to Federal agency special use permits for vacation home sites on their holdings. The current policies and practices of selected ownerships in each of these categories are presented below.

A. Policies of Federal Agencies

All of the federally-owned public lands available for vacation home use through the issuance of special permits are under the aegis of the U.S. Department of Agriculture (Forest Service) or under the U.S. Department of the Interior (National Park Service). The number of vacation home sites existing on Federal lands in 1967, as shown in Table XIII-1 totalled 19,735, of which 19,324 were under permit and 411 were unoccupied.

Over 99 percent of all the occupied sites are administered by the Forest Service. Further, 46 percent are in Forest Service Region 5 (California). The only unoccupied sites were located in sparsely populated areas of Montana, Utah, and eastern Oregon and Washington. The various Forest Service Regions within the contiguous 48 states are shown in Figure 1.

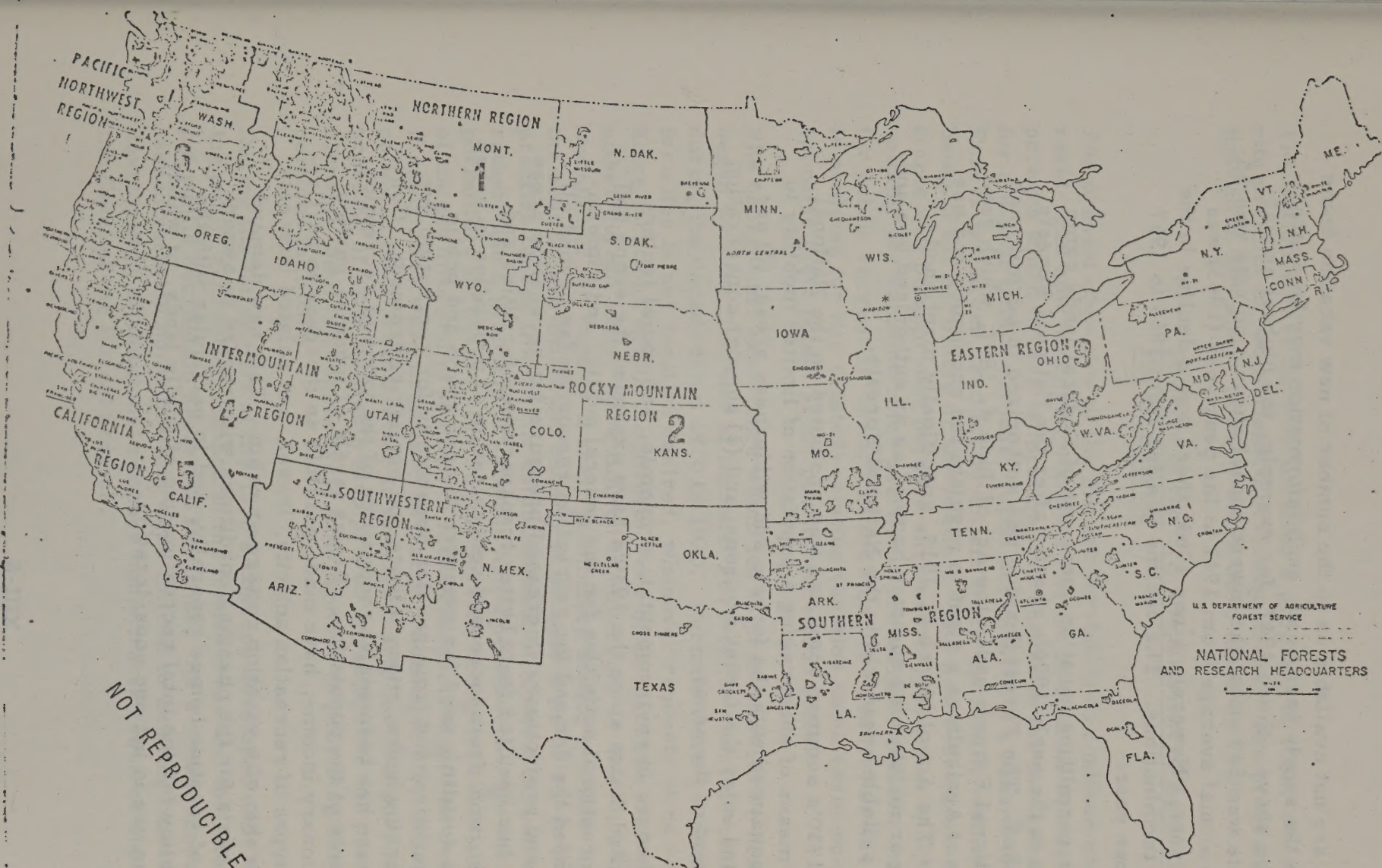
The number of occupied sites in National Forests from 1947 to 1967 is as follows:

<u>Year</u>	<u>Occupied Sites</u>	<u>Percentage Of Maximum</u>	<u>Average Annual Change</u>
1947	15,089	77.8	
1949	16,187	83.4	+549
1951	16,594	85.5	+204
1953	16,668	85.9	+ 37
1955	17,728	91.4	+530
1957	18,057	93.0	+165
1959	18,905	97.4	+424
1961	19,335	99.6	+215
1963	19,406	100.0	+ 35
1965	19,323	99.6	- 42
1967	19,155	98.7	- 84

Table XIII-1. Status of vacation home sites on Federal land, 1967.

Location	Number of Vacation Home Sites		
	Total	Occupied	Unoccupied
U.S. Forest Service:			
Region 1	1,112	1,087	25
Region 2	1,588	1,588	-
Region 3	1,852	1,852	-
Region 4	2,115	1,865	250
Region 5	8,918	8,918	-
Region 6	2,519	2,383	136
Region 8 ^a	451	451	-
Region 9 ^a	<u>1,011</u>	<u>1,011</u>	<u>-</u>
Total U.S. Forest Service	19,566	19,155	411
National Park Service	169	169	-
National Recreation Areas:			
Coulee Dam	27	27	-
Lake Mead	142	142	-
Total	19,735	19,324	411
^a Forest Service Region 7 was incorporated into Regions 8 and 9 prior to 1967. Source: U.S. Forest Service; U.S. National Park Service.			

XIII.7



NOT REPRODUCIBLE

Figure 1: Forest Service Regions in the Contiguous United States

Although data are not available as to the number of new vacation home sites added to the supply each year, such information may be approximated from the above. Since 1947, for example, the highest annual absorption rate was 549 sites; the lowest annual absorption rate was 35 sites; and the annual average from 1947 to the peak year (1963) was 270 sites per year. However, since 1963, there was a decline in the supply due to terminations. The decline in sites from 1963 to 1967 averaged 63 per year.

The policy for permitting vacation home use of Federal lands came into existence in the early 1900's shortly after the National Forests were established. The Forest Service was authorized to permit such use of the National Forests under the Act of June 4, 1897, which gave the Secretary of Agriculture a right to regulate the occupancy and use of the forest. The Act of March 4, 1915, specifically mentioned "constructing or maintaining summer homes" as an authorized use and occupancy of suitable areas within the National Forests.

Through the 1930's summer home use was promoted on the National Forests as a means of encouraging a population of limited mobility to (1) become acquainted with the forests and wilderness areas; (2) use, appreciate, and enjoy the forest environs; and (3) support conservation and management of the areas.

Substantial changes in environmental, economic, and social factors within the United States since the 1930's have expanded the scope and variety of recreational activities for the general public, and simultaneously expanded the demand for recreation resources far beyond all expectations and projections. Increased pressure for recreation areas and facilities has resulted from better transportation facilities and shorter travel time; from increased concentration of population in urban areas and the resulting need for exposure to open space and public recreation facilities; and from greater opportunity for recreation due to shorter working hours, more leisure and earlier retirement. Concurrently, there has been social recognition of the value of recreation for all segments of the population. Rising levels of income, particularly discretionary income, have made possible an increase in participation in all types of recreation activity, travel, and related interests such as ownership of a vacation cottage or cabin. This new demand has been the basis for the changing conditions with regard to ownership and use of vacation homes generally, and in particular with the changes in policy for the total recreation use of public lands, of which vacation home use is but one consideration.

The National Park Service initiated a program in 1954, offering cabin site permits in two National Recreation areas. The program was limited to 169 sites, most of which were taken by 1959.

1. Policies of the U.S. Department of Agriculture,
Forest Service

The present objective of the Forest Service is to continue recreation residences now occupying National Forest land under special-use permits which (a) are at locations not needed in the foreseeable future for a higher public purpose, (b) do not constitute a hazard to National Forest resources, and (c) do not endanger the health, safety, or well-being of the permittee or the public.^{1/} No new recreation-residence tracts will be approved because any undeveloped areas which might be suitable for vacation home use would probably be suitable and needed for public recreation use.^{2/} In addition, the Forest Service field staff is studying (or has studied) existing vacation home residence tracts to appraise their potential for public recreation sites.

The background experience which led to present vacation home policies began with the first use of National Forests for vacation cabin sites during the decade from 1910 to 1920. Permits were generally issued for sites in any location desired, whenever requests were received. Since locations within the forests were often inaccessible because roads either did not exist, were limited in coverage, or were inadequately maintained for regular travel, permittees tended to select sites with the best accessibility and usually at or near a water source. This practice tended toward the establishment of isolated cabins and camps rather than a grouping of vacation home permittees. As the number of permittees increased, the Forest Service recognized that administration of the permits and protection of forest property would be more efficient if cabin sites were organized in tracts. Consequently, it became the policy of the Forest Service to develop tracts for this purpose. The grouping of sites by tracts also proved advantageous for permittees, allowing them to cooperatively join together in providing certain common facilities.

During the latter part of the 1930's concern developed over the increasing public recreation demand in the forest areas and the future need for public recreation areas and facilities. As a consequence, all newly issued vacation home permits were limited to existing tracts; the development of additional summer home tracts required approval of the Chief of the Forest Service.

After World War II, demand for public recreation increased at a rapid rate. The frequency of participation and the variety of recreational activities sought were unprecedented. This new emphasis on recreation resulted from the dramatic increases in urbanization, mobility, leisure, income and education. The National Forests were the greatest source of land and environment for satisfying this new demand. In recognition of this, the Forest Service established a priority ranking of four categories of recreation use as a basis for recreation planning in National Forests. By priority these are:

- | | |
|-------------------|---|
| Highest priority: | Sites for public recreation facilities |
| Second: | Sites for organizational recreation facilities |
| Third: | Sites for commercial public recreation facilities |
| Fourth: | Private use of public land - vacation home sites |

Planning based on this priority scale brought immediate recognition of the need to limit vacation home permits. Thus, the present policy not to develop new recreation-residence tracts emerged. Under this existing policy recreation-residences in established tracts will continue to be recognized as a valid use of National Forest land unless and until a determination has been made that a particular lot is needed for a higher priority public purpose or should be vacated for some other specific reason.

To continue recreation-residence use of the permit sites already established, a policy of transferring permits to new owners of improvements is effected whenever a permittee sells his vacation home. About 64 percent of the permits in force were issued as a result of resales of improvements; 36 percent are permits issued on vacant sites to original permittees who subsequently built their own improvements.

2. Policies of the United States Department of Interior

Two agencies within the United States Department of the Interior engage in the management and/or sale of public lands which have some orientation toward vacation home use: The National Park Service administers some of the National Recreation areas which have a limited

amount of land designated for vacation cabin site use; and the Bureau of Land Management engages in the sale of small tracts (2-1/2 and 5-acre parcels) which are frequently purchased for second home or vacation home use although they are not limited to that use.

a. National Park Service. Prior to January 1, 1964, land in certain National Recreation Areas, administered by the National Park Service, (NPS), were designated for vacation cabin site use. As a result of the pre-1964 policy there are 27 cabin sites at Coulee Dam National Recreation Area in the State of Washington, and 142 vacation cabin sites at Lake Mead National Recreational Area in the States of Nevada and Arizona. The policy regarding vacation cabin sites in areas administered by the NPS is currently under review. No further offering of sites will be made pending completion of the review. However, transfer of permits on existing sites is allowed when title to the improvement changes ownership (by sale or inheritance), but the term allowed in such transfers is limited to the remaining period of the original permit. This procedure allows a minimum commitment on occupancy and tenure while the policy is under review.

In all other areas administered by the National Park Service, cabin site permits are not issued.

b. Bureau of Land Management. Vacation home use of small-tract parcels sold by the Bureau of Land Management (BLM) is known to exist, but the extent of this use is not recorded since the parcels may be used for any purpose designated for the tract in the zoning plan of the county where the tract is located, and no record is maintained of the use after sale. The sale of these small tracts, usually 2-1/2 or 5-acre parcels, is authorized by the Public Sale Act of 1964. Weekly auctions of such tracts, conducted through the field offices of the Bureau of Land Management, account for a small number of parcels being absorbed into the market continuously. The fair market value of any parcel, as determined by the Bureau of Land Management appraisers, becomes the minimum acceptable bid price.

Prior to 1964, the Bureau of Land Management leased small tracts (under the Small Tract Act of 1938) and were authorized to make subsequent sale of any leased tract, if during the leasing period, a specified improvement was constructed on the property. During this leasing period, most of the improvements constructed were minimum, cabin-type structures. The lack of zoning controls during this initial leasing period contributed to what appeared to be primarily a vacation home use of the property. Demand for the leases, speculative interest

in the lands, lack of development controls, and lack of coordination with local county or community jurisdictions with regard to zoning sanitation, water supply, schools, fire and police protection, road building and maintenance, etc., imposed serious problems on the Bureau of Land Management, the local communities, and on the lessees and buyers of the tracts. As a result, revisions in the Bureau of Land Management's land disposal plan were made from time to time, eventually evolving into the present policy of all sales rather than leasing.

Since the Bureau of Land Management does not use retained lands for vacation home permit sites, no further discussion of the Bureau of Land Management lands for vacation home use will be pursued in this study, except for a case study of appraisal values.

B. Policies of States

Four states were selected by the Commission for special study with regard to permitting vacation home sites on state-owned lands: Pennsylvania, Wisconsin, Washington, and California. A statement of general policy for each state follows.

1. Pennsylvania

The State of Pennsylvania has a policy of leasing vacation home sites in the State Forests, authorized by the legislature in 1929. Currently, 4,555 vacation-residence sites are under lease; about 50 to 60 sites have been added each year since 1960, except in 1968 when only 31 were added. Only state residents may lease sites. The program is limited in scope and present leases can be terminated as higher and better uses for the land develop. There is no plan for increasing the number of sites above the present level and there is no plan for elimination of the existing leases. The term of each lease is only 10 years; renewal privileges may be offered by the state but are not guaranteed.

2. Wisconsin

The State of Wisconsin had a program of leasing cabin sites in State Forests and State Parks which started between 1900 and 1910, and reached a total of several thousand sites. By the late 1940's it became the state's general policy to terminate these leases as rapidly as circumstances would permit, with the least harm to the financial and other interests of the lessee. In December of 1954 a specific policy of termination was adopted that (1) prohibited new leases and

(2) provided for the termination of all existing leases on summer home sites by 10-year termination notice, or after a specific period (shorter than 10 years) that allows the lessee to amortize his investment at a reasonable rate. Consequently, all leased sites for cabins in both State Parks and State Forests of Wisconsin have been under a liquidation program since 1954.

The original intent of the 1954 policy was to recover all leased lands by the end of 1964, except for a few sites leased under different terms in effect when the lands were acquired by the state from private parties. The liquidation period has taken longer than anticipated. In early 1969, 16 leases still remained for cabin sites in State Forests. Also, some sites in State Parks on which the leases have expired have not been recovered because of lessee litigations.

The policy of terminating private recreational cabin site use of land in State Parks and State Forests was based on the need to hold and develop state recreation lands for the greatest overall public good. It was recognized that the forest and park properties possess important scenic, historic, geologic, botanic, natural or other scientific values, and that they offered a variety of recreational opportunities which should be held, developed and managed for the use and benefit of all citizens or visitors to the state.

3. Washington

The State of Washington does not lease state land for summer home sites. It is their policy to preserve these areas for public use. There was demand and pressure for a leasing program of this nature to parallel the Federal program of special use permits for vacation home sites in National Forests within the State of Washington. However, after study of the problems confronting public agencies which had engaged in leasing programs, a decision was made in 1957 to continue with their policy not to lease for the purpose of private recreational residences.

4. California

According to the State Code, state-owned land in California must be used for the enjoyment and benefit of the public. Consequently, practically no vacation home leases exist on State Park or State Forest land in California. The only exceptions are: (1) in two of 130 State Parks, some private housing is leased to comply with the requirement that historical environment be furnished for historical parks at

Columbia and Marshall Gold; and (2) in a third State Park, 13 cabins, acquired with the land, will be leased until such time as they have depreciated and are removed.

C. Policies of Private Ownership

1. Leasing

Owners of large land holdings often find it advantageous to lease parcels on a long term basis rather than sell them. There are advantages from: (1) a tax standpoint (to avoid the capital gains tax resulting from a sale); (2) land value appreciation, and (3) holding for future use. Leasing for vacation home or second home use is particularly applicable to forest-type and water-oriented land holdings -- the type usually held by railroad companies, utility companies, forest product-oriented companies (such as lumber and paper producers).

Most instances of leasing by private ownerships for vacation home sites were found in the West. Examples of these lessors include: Weyerhaeuser Properties, Inc., Northern Pacific Railway Company, and City of Tacoma Light & Power Company, all in the State of Washington; Pacific Gas and Electric, Southern Pacific Company, San Luis Obispo Bay Properties, Inc., and The Irvine Company, all in California.

In Pennsylvania, developers of second home communities reported that land holders were willing to lease but the public preferred to buy, and the ample supply of such properties available for purchase precluded the opportunity for leasing. Most leasing of privately-owned recreation-oriented residential properties serving the Pennsylvania market is occurring in the Jersey shore area.

In Wisconsin, one program of leasing vacation home sites on Indian Reservation property appeared to be on the threshold of development, but all other second home developments, which knowledgeable people in state land and recreational administration offices were aware of, were on a sales basis.

Generally, lessors of private land for vacation home use have not expanded their activity of individual private leases at secluded locations. They consider the practice outdated as they have learned that a higher and better use of the land can be made for the development of recreation facilities or total vacation home communities.

2. Sales

In all four states, private developer's have accumulated large holdings and constructed extensive vacation home communities on a sales rather than a leasing basis. Case studies, noted later in this report, outline the extent of development, the demand experienced, and the selling prices of these vacation home sites.

IV. GENERAL REVIEW OF LEASING FACTORS AND CONSIDERATIONS

Before reviewing specific conditions applicable to Special-Use Permits issued by Federal agencies of vacation home sites on public lands, it is important to understand the rationale of leasing and the general conditions usually contained in leases and permits. A knowledge of these factors will provide a basis for evaluating present and future practices as well as changes in policies regarding vacation home sites.

For purposes of this discussion, a Special-Use Permit for vacation home sites on Federal land is considered equivalent to a lease because basically it functions as a lease.

A. The Rationale of Leasing

1. Lessor's Interest in Leasing

In many instances, land is leased rather than sold so that the lessor can achieve certain advantages such as tax benefits, retention of ownership in the land, flexibility in the use of the land on a long-range basis, procurement of a monetary return from the use of the land during the lease period, and recovery of possession of the land at the end of the lease term. Further, since land appreciates in value over long periods of time, the holding of the ownership in the land provides the lessor the opportunity to benefit from appreciated land values.

2. Lessee's Interest in Leasing

The lessee's interest in leasing land is to use the property for some purpose that would not otherwise be available to him - usually an opportunity for doing business and making a profit. That is why most land is leased for commercial use rather than residential use. In the case of leasing forest land for vacation home use, the opportunity made

available to the lessee is for enjoyment of the forest and the other existing amenities such as lakes, rivers, climate, etc.

There are other advantages for the lessee in leasing. By leasing land rather than buying it, the lessee is not tying up capital in land ownership; he often avoids a substantial initial payment otherwise necessary to gain possession of the land; his lease fee is usually within a reasonable range of interest charges were he financing the purchase of a similar type property; and, in some states there is no land use tax on leased land. Thus, leasing can be one means of having use of a desirable site that would not otherwise be available even if the lessee were willing to purchase that site or a comparable one.

There are, however, certain disadvantages to the lessee that must be evaluated. For example, there is no equity interest accumulated in the land for the lessee; the improvement constructed on the leasehold is a wasting asset to be fully depreciated, used, and enjoyed entirely within the term of the lease; and, the lessee has no guarantee for continuation of his occupancy of the leasehold beyond the term specified in the lease.

3. Term of Tenure of the Leasehold

Normally, two factors influence the term offered in a land lease: (a) the value of the improvement to be constructed; and, (b) the desire of the lessor to recapture the land at some future date for a higher and better use.

The value of the improvement to be constructed on the leasehold is a major factor in determining the term or tenure of a lease offered by a lessor and accepted by a lessee. In arriving at the specified tenure, the objective is to allow the lessee adequate time to use the property so that the cost of the improvement can be amortized at an acceptable rate over a reasonable period of time. As a general principle in leasing land for building sites, the value of the improvement to be constructed is usually either specified within minimum and maximum range or otherwise negotiated before the term of the lease is determined.

The second factor influencing the tenure of a land lease is the length of time in which the lessor desires to regain the property for his own future use. The term of the lease (or some provision for early termination) should reflect this long-range planning.

4. Lease Rent

The lessee pays rent for the opportunity arising from the leasehold, whether that opportunity is for business or for pleasure. The lease rent in no way entitles the lessee to any equity in the land or to the other factors of ownership which are retained by the lessor. Lease rent is usually adjusted periodically to account for appreciation in the value of the land, for any appreciation in value of the opportunity the lease affords, or for "costs of living" increases. In a commercial lease, the rent is based upon a percentage rate of the value of the land and/or the income derived from the business use of the parcel. In a residential land lease, the rental rate depends entirely on the value of the land.

5. Leasehold Improvement and Depreciating Assets

The improvement on the leasehold, whether for residential or business purposes, must be considered a wasting or depreciating asset that will have none but salvage value at the expiration of the lease term. In some instances, at the end of the lease term, ownership of the improvement is automatically vested in the lessor. The lessee must therefore amortize the cost of the improvement over the term of the lease. Thus, a recreation residence on leased land is a depreciating asset.

6. Comparison of Leasing with Ownership

Since most leased land is for commercial use, and depreciation of the improvement is provided for in the financial operation of the commercial use, such lessees do not anticipate the benefit of appreciation. They usually understand leasing rationale. However, lessees who use leased land for vacation homes or other residential use often misunderstand that aspect, -- the lack of opportunity for appreciation in value of the improvement.

Lessees of residential land are in many instances not versed in the rationale of leasing and tend to expect the same benefits from leasing as from land ownership. Residences are usually built on privately owned land. Even if the building depreciates to little or no value over a 30-year period, the total value of land plus building tends to increase in value substantially due to real and inflationary growth of the economic base of the nation. This total increase accrues to the owner of both land and building(s).

On the other hand, a building on leased land will not continue to be usable to the lessee when the term of the lease has expired. Consequently, in spite of the rising cost of replacement, the limited tenure for use of the building eliminates the opportunity for the lessee (permittee) to benefit from appreciation accrual.

Also, in the case of ownership of a residence together with the land, once the mortgage debt has been satisfied, the costs of occupancy of that residence to the owner are limited to maintenance and real estate taxes. But on leased land, the costs of occupancy, i. e., rental fee, may be increasing, even though the value of the improvement is declining. In addition, costs of maintenance and property taxes must also be borne by the lessee.

7. Value or Worth of a Leasing Opportunity

Since no appreciation from either the improvement constructed or from the leasehold land accrues to the lessee, the opportunity for leasing land must be evaluated on the basis of the "worth" of the use of that site during the period of the lease. For a vacation home site, the "worth," measured in terms of the recreation pleasure derived from occupancy of the site, must be considered equivalent to total expenditure for building, lease fee, taxes, and maintenance cost during the tenure of the lease.

B. General Conditions Specified in Leases or Permits

Each land owner - whether Federal Government, State government, or private owner - administering vacation home site permits or leases usually has a written agreement with the permittee or lessee specifying the conditions applicable to the occupancy and use of the site. Conditions usually covered in the agreement include the following major items:

- Description of the property

- Effective term or tenure for occupancy of the site

- Rental rate determination

- Rental rate

- Rental readjustment period

- Rental readjustment method

- Charges in addition to rental (taxes, assessments, fees)

- Improvements

- Approval of plans and specifications

- Compliance with codes and regulations

- Statement of costs incurred or cost restrictions

- Required schedule of construction
- Landscape requirements or restrictions
- Signs
- Use of premises - requirements and any restrictions
- Maintenance, repairs, inspection, hazard prevention
 - Applicable to building
 - Applicable to premises
- Termination conditions
 - Settlement at expiration of full term
 - Termination by default of lessee
 - Termination by assignment
 - Termination by eminent domain.

In addition, miscellaneous conditions pertaining to: the keeping of pets; easements; reservations; waivers; mortgaging and financing consent; indemnity and insurance; are added whenever applicable.

Both the lessor and the lessee should understand all the conditions stated prior to signing the agreement and putting it into effect. The lease document (or permit) then serves as a point of reference to both lessor and lessee for administration of the leasehold and execution of the terms.

C. Problem Areas of Leasing

The most important factors to both lessor and lessee are: (1) tenure of the leasehold, and (2) the rental rate. As such, these factors have the potential for generating the most problems during the life of the lease and on termination of the lease.

The tenure or term of the lease acts as a safeguard for each party against cancellation or early termination of the lease. In fact, the agreement usually stipulates penalties as well as arrangements or procedures for early termination by either lessor or lessee. Grievances can occur if early termination is enacted without such stipulations in the lease, but grievances should not arise if termination occurs at the normal expiration of the lease term as agreed upon and specified in the leasing document.

Adjustment in rental rates can also be a problem if the readjustment interval and the method of determining readjustment in rental rates are not specified in the lease. Usually a grievance procedure on the renegotiation of rental rates is specified in commercial leases. When

the renegotiation interval and the method of redetermining rental rates are written into the leasing agreement, the problems related to rental rate changes are minimized.

Very few problems arise from other conditions included in leases or permits for the use of land.

V. CONDITIONS OF TENURE FOR VACATION HOME PERMITS

In this section, the existing practices of the appropriate Federal agencies regarding tenure offered in vacation home permits will be reviewed and analyzed in reference to the previously discussed leasing criteria. For comparative purposes, the existing practices by state agencies and private land owners in the selected states will also be reviewed.

A. Tenure Conditions in Forest Service Permits for Vacation Home Sites

The Forest Service has used two types of permits for vacation home sites: terminable permits and term permits.

1. Terminable Permits

Terminable permits were authorized by Act of June 4, 1897 and were the original type issued for vacation home sites. They were considered more in the nature of a revokable license than a lease, although for the permittee the permit served a purpose equivalent to a lease.

a. Conditions of Tenure. No minimum tenure was specified in terminable permits for a vacation home site, and no expected date of termination was stated. The permits were renewed annually and automatically by payment of the specified rental fee; they were not rewritten annually or at any specified interval, only upon a change of conditions (i. e., change of ownership, deterioration or destruction of the improvement, etc.). They could be terminated upon breach of any conditions by the permittee or at the discretion of the Forest Service.

In addition, the length of notice required to terminate the agreement was not stated; later, in term permits, a 30-day notice was required which constituted the minimum period of notice. According to the permit, permittees were allowed to remove their improvement "within a reasonable time" which was usually determined as 6 months or 1 year. In practice, the notice of termination has usually been in terms of years rather than any shorter period.

b. Interpretation of Tenure by Permittee. About 64 percent of the present permittees who responded to the mail questionnaire indicated they held a terminable-type of permit. In spite of the clause within the permit stating that it could be terminated at the discretion of the Forest Service, almost all of the permittees holding

this type of permit stated they had a continuous, year-to-year permit and interpreted the total term as being virtually without limit (equivalent to a 99-year term, or to perpetuity), provided they complied with Government rules and regulations concerning use of the site and condition of the improvement. Permittees attributed their understanding of perpetual occupancy primarily to the permit itself, to informal opinions of Forest Service personnel or to previous owners (in the case of permittees who acquired sites through purchase of an improvement from a former permittee).

c. Expected Tenure of Present Permittees. From the questionnaire it was shown that 60 percent of present permittees expected to keep the permit and site as long as it was available; only 9 percent expected to occupy their permit site for less than 20 years. Only 6 percent said they offered their improvement for sale during the last 3 years. However, in actual practice, Forest Service officials reported that about 10 to 15 percent of permits change hands annually, with a concentration in turnover among selected sites rather than throughout the forests.

d. Indefinite Tenure Encourages Speculative Resales. The interpretation of tenure in perpetuity resulting from the terminable permit, combined with other factors (scarcity of sites, low permit fees, and desirability of vacation home locations within the forests) have created and encouraged a speculative market for acquisition of sites. This practice might not have occurred if a specific number of years had been stated in the permit. Examples of sales transactions indicate that sales of vacation home improvements tend to bring a premium over the appraised or market value attributed to the structure.

When the resale value of the vacation home improvement exceeds the fair market value of the improvement, then all or part of that premium in selling price may be considered the amount paid to acquire the permit privilege. A comparison of the selling prices of vacation home improvements reported in Snoqualmie National Forest with the market value of those improvements imputed from county assessor records (see Table XIII-2) shows that the average sale brought a premium of \$4,400 over the imputed fair market value.

These premiums attached to the value of procuring a permit are higher than the land values for most of the sites themselves. The value of the sites for the 14 transactions listed in Table XIII-2 ranged from \$2,000 in the Tieton and White River Districts to \$4,000 in the North Bend District.

Table XIII-2. Estimated premium paid for a vacation home to procure a site permit^a, Snoqualmie National Forest, 1962-1968.

District and Tract	Lot No.	Market Value of Improvement Based on Assessed Value	Selling Price Reported	Selling Price Premium Attributed to Permit
White River District (Silver Spring Tract)	126	\$ 4,500	\$ 9,000	\$ 4,500
	62	5,000	14,000	9,000
	30	8,300	9,000	700
	29	9,000	10,000	1,000
	38	5,000	6,600	1,600
	146	6,000	11,000	5,000
	104	11,700	13,700	2,000
	161	6,000	16,000	10,000
	24	7,500	10,000	2,500
	114	12,500	12,500	0
Tieton District (Andy Creek Tract) (Hart Creek Tract)	3	5,500	9,600	4,100
	59	3,000	9,500	6,500
	7	3,500	10,000	6,500
North Bend District (Denny Creek Tract)	5	3,000	11,500	8,500
Total		\$90,500	\$152,400	\$61,900
Average Per Lot		\$ 6,460	\$ 10,880	\$ 4,420
<p>^a Value of the permit determined as the residual of amount received for sale of improvement above the imputed market value of the improvement.</p> <p>Source: Forest Service, Snoqualmie National Forest; County Assessors for King, Pierce, and Yakima Counties, Washington; DMJM Economics.</p>				

In addition, in five of the 14 transactions checked, the cabin improvement had been sold twice at approximately 2-year intervals, and in all five instances the second selling price was \$1,000 to \$5,000 more than the first selling price. This is a further indication of the speculative climate engendered by the system of terminable permits coupled with scarcity of sites and low annual charges for a permit.

e. Problem Areas With Terminable Permits.

Terminable permits, then, may generate the following potential problems:

From the standpoint of the Government a definite tenure (and consequently a definite recapture date) is not tied to each vacation home site. Long-range planning for reuse of the site is hindered by the need to provide adequate notice of termination of the permit. Field staffs and administrative personnel frequently are asked to make verbal commitments as to the interpretation of the tenure intended. When indefinite tenure is interpreted as tenure in perpetuity, it tends to generate resales of improvements at speculative prices and further confounds rational leasing arrangements.

Since no minimum term is stated, any attempt to terminate a site for higher-priority reuse may generate the type of problems attendant with early termination of any term permit or lease, i. e., compensation for the improvement, litigation, congressional hearings or pressures, and public criticism of a program that was designed to be beneficial.

The more indefinite the tenure, the greater the tendency for permittees to exert pressure on the Government for more favorable conditions of occupancy, even sale of the sites to permittees, or acquisition of title through property exchanges. Benefits from increased value of the site are not fully reflected in increased returns to the Government.

From the standpoint of the permittee when a permittee enters into a permit without a definite stated tenure, he cannot make a realistic evaluation of the cost of the improvement he can afford to construct on the site and the annual amortization of that cost that he is willing to absorb for the pleasure of using the property. The fact that he is willing to absorb for the pleasure of using the property. The fact that he is willing to enter into such an indefinite arrangement tends to indicate that he does not understand the principles and rationale of leasing. However, no instances have been reported of permittees refusing terminable permits because of year-to-year tenure.

In the event of the sale of the vacation home improvement, both the seller and the buyer need a firm understanding of the balance of tenure existing to evaluate the price at which each is willing to make the transaction. The hope or expectation of the permit being continued in perpetuity tends to contribute to speculative purchases and resale prices because the supply is limited to existing sites.

There is a tendency for the permittee to treat the leasehold as virtually equivalent to fee simple ownership, making long-term plans for retention of the site for future generations of their families and/or for occupancy during retirement years. He tends to treat the value of his improvement as an investment instead of a depreciating asset, and fails to accept this rationale if and when termination comes. This fact has been substantiated by requests for compensation for the improvement when permits are terminated, and by proposed legislation that would authorize compensation.

When tenure is uncertain, permittees tend to feel and act with indecision about maintenance, repairs, and improvements to the premises which could result in deterioration of the improvement and affect the surrounding environment. Regardless of the tenure experience, if continued occupancy is uncertain, a defensive attitude toward the Government by the permittee may result, thus erasing the original intent of cooperation and good will.

From the standpoint of the general public if unlimited tenure is the policy and the supply of sites is limited to those existing, the general public does not have an equal opportunity. If prospective occupants acquire a permit for use of a site, it will probably be by paying a premium above fair market value for the improvement on the site. The difficulty and delays occasioned in the Government's reclaiming sites under terminable permits results in delays in providing recreation facilities for the general public. If indefinite tenure leads to compensation for the improvement on the site when the site is reclaimed by the Government, the general public bears the financial burden without having had use of the site or the improvement.

2. Term Permits (Authorized by Act of March 4, 1915)

Term permits, although authorized in 1915, were seldom used for vacation home site occupancy until the 1950's. The maximum period for which a term permit could be issued, for any authorized use of land in National Forests, is 30 years, but the maximum term offered for this use has been 20 years.

The offering of 20-year term permits to replace terminable permits on vacation home sites was initiated to allay any misconceptions about the tenure covered by terminable permits and to meet the request of some permittees and homeowners organizations for a definite term of occupancy. The program of offering term permits was extended over a period of years (and is still in progress) because it called for a long-range review of each vacation home tract before offering term permits to the permittees within that tract.

In January 1969, a new policy directive by the Forest Service (2721.23b, item 9c) was issued regarding term permits: holders of 20-year term permits may look forward to an additional extension of up to 10 years, if during the first 10 years of the 20-year term, it is determined the land will not be needed for public purposes for that additional period of time. In essence, then, the new policy is equivalent to providing a minimum of a 10-year notice of termination on vacation home sites, and to extending tenure up to a 30-year maximum from the date permits were reissued for the site, if it is feasible to retain the lands for this use.

In addition, all reissued term permits within a single tract of vacation home sites have been scheduled to expire at a common time. A provision is made in the term permit for determining the maximum compensation for the improvement if early termination is ordered by the Government before the normal expiration of the tenure specified in the permit. (No compensation is applicable on normal expiration of a permit, corresponding to usual leasing practices.) However, not all permits have been converted from terminable to term, partly because some permittees preferred to retain terminable permits in the hope they might have a longer life than term permits; and partly because conversion to term permits has not been offered for those tracts for which the future use potential is still being evaluated. About 21 percent of the permittees responding to the mail questionnaire indicated that the term of their present permit is 20 years; 13 percent indicated the term is 10 years; and 64 percent are still on terminable permits.

3. Identification of Problem Areas With Term Permits

The new conditions of tenure incorporated in term permits by the Forest Service have corrected many of the problem areas noted previously for terminable permits. The remaining potential problem areas may be summarized as follows:

From the standpoint of the Government there is little flexibility for reuse or replanning of any area due to the promise of a 10-year notice of termination under the new term-permit policy, and the 10-year renewal option to be offered at the midpoint of a present 20-year term. This in effect increases the termination notice to at least 20 years. Flexibility of use of the sites within the next 20 years may be paramount if pressures for recreation facilities and recreation areas continue to be as rapid as in the past 20 years.

In view of the average cost of the improvement, reported by permittees as averaging \$7,500, the total term to be allowed under present policy is unusually long. The Government in effect is tying up lands for a long period of time in order to permit an extremely low annual amortization (\$7,500 original cost amortized over 30 years could have been only \$250 per year; over 50 years only \$150 per year).

Term permits will not solve any of the problems arising from terminable permits unless all terminable permits are replaced. The present practice of permit extensions to satisfy pressure from permittees and their congressional representatives may set a precedent for never recovering the sites for public benefit.

Even if a definite term is established, unless the term is enforced by repossessing the sites at the end of the specified tenure, many of the potential problems inherent in terminable permits will continue: pressures to extend the occupancy; speculative resales of vacation home improvements; and, pressures to sell or exchange other forested areas for the vacation home sites. The policy directives and the language of the permits do not definitely specify that the sites will ever be recovered.

From the standpoint of the permittee term permits are considered unsatisfactory by some permittees only because they believe the specified term reduces their occupancy from perpetuity to a specified number of years.

Because of their lack of understanding of leasing rationale, some permittees feel the Government should compensate them for their improvement, even if the total specified term is available to them.

From the standpoint of the general public the problems affecting the general public, which were associated with terminable permits, can be eliminated by the term permit, provided the term is reasonable (such as 20 to 30 years for any site) and the site is recovered at the end of the term. If more lax procedures are practiced, then the use of term permits will not eliminate the problem areas listed for terminable permits.

B. Tenure Conditions in National Park Service Permits for
Vacation Home Sites in National Recreation Areas

All special use permits issued by the National Park Service for vacation home sites administered in National Recreation Areas under its jurisdiction carried a 25-year term. Any reissuance of permits for any of these sites, when the improvement is sold or transferred, is for the remainder of the original 25-year term. Since the permits were offered between 1954 and 1959, they will terminate between 1979 and 1984.

Since this program became effective much later than the Forest Service program of vacation home sites, the tenure conditions could be planned in accordance with usual leasing principles and with benefit of the experience encountered in the earlier program. Consequently, the tenure conditions are realistic for both the administering agency and the permittee.

C. Tenure Conditions in Vacation Home Site Leases on State
Lands

Cabin-site permits issued by the State of Pennsylvania Department of Forests and Waters have 10-year terms; renewal is possible but not guaranteed.

In Wisconsin, the maximum term now being used for cabin-site leases on State Forest lands is 2 years; a complete liquidation program is in process and will be completed by 1974. A 10-year notice of termination was issued at the beginning of the liquidation program.

Washington and California have no cabin-site permits on state lands.

D. Tenure Conditions in Private Ownership Leases

The tenure of leases for vacation home or other home use on privately owned land ranges to 99 years. For example, in Washington, Weyerhaeuser Properties leases sites in recreation-oriented surroundings on a 99-year basis; Lake Cushman Development Company leases land owned by Tacoma Power and Light Company on a 99-year term; and, Northern Pacific Railway Company issues leases for either an indefinite term or a 20-year term.

In California, Pacific Gas and Electric Company has leases for 10-year periods, new or renewal, although no new leases have been drawn for many years. Leases in an ocean-oriented, privately-owned club and

recreation community in the San Luis Obispo areas are for 15 years. It may be noted that one large landowner in Orange County (the Irvine Company) is leasing for regular residential purposes through developers who construct the off-site improvements and build the residence on each parcel. The land lease to the buyer of the home is for a tenure of 75 years; however, the investment in a permanent home warrants a longer lease than an investment in a mountain cabin or vacation home.

Leases for residential use of eastern seashore land serving the Pennsylvania market range from 60 to 90 years. Again, these sites are usually used for year-around residences rather than limited to vacation occupancy.

E. Summary of Conditions of Tenure

Since the Forest Service originated the idea of leasing forest and water-oriented land for vacation home sites as a multiple use of public land, some states and other large holders of similar lands (such as railroads, utilities, and forest product-oriented companies) followed the example, often using conditions from Special Use Permits on Federal lands as guidelines for their own activity. However, most lessors now consider year-to-year leases outdated. States which have evaluated programs for leasing cabin sites on their lands have either decided against leasing, started terminating their programs, or are keeping tenure extremely short and without guarantee of extension because of the need for land for public recreation.

The newer private developments that have offered leases appear to be evaluating tenure on the basis of their own needs. If tenure does not interfere with their own business use of the property, they are willing to enter into 99-year leases with other conditions of the leasehold compensating for this tenure (e. g., an initial selling price, and periodic rent adjustments to keep revenue production at prevailing levels). Also, the trend is toward creating a planned community that is recreation-oriented in order to maximize lessee interest. It would appear from contacts with these developers that lessees evaluate a 99-year term as "forever" and treat the tenure as equivalent to fee simple. There is no assurance that the same problems that were found to exist with terminable leases will not develop toward the end of the 99-year term when the ultimate lessee realizes his improvement must be liquidated.

The term lease which meets the criteria of tenure long enough for a reasonable amortization of the improvement value can provide a satisfactory vehicle for temporary use of land during a holding period until

reuse is justified — but only if the lessee (or permittee) understands and accepts the idea of an expendable improvement.

Tables XIII-3A, 3B, 3C, and 3D summarize the conditions of tenure found in leases and permits for vacation home type properties in each of the states selected for special study. It will be noted that except for the term of permit, most of the other conditions applicable to occupancy and use of vacation home sites on Federal land are similar to those on private land. These other conditions are also similar to those imposed on sales of property for second-home or recreation-oriented developments.

Table XIII-3A. Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of Pennsylvania.

Ownership and/or Administrating Agency	Condition Items ^a						
	1 Term	2 Construction of Building, Alterations	3 Maintenance of Building/ Grounds	4 Transfer Ownership	5 Cancellation Notice	6 Termination Conditions	7 Occupancy Conditions
FEDERAL GOVERNMENT Forest Service	1a, b (20 years)	2a, b, c, d, h	3a, b, c, d, e to FS standards	4a, b, c	5a, b, d, e	6a (180 days) 6b	7b, d
STATE GOVERNMENT Department of Forests & Waters	1b (10 years; renewal possible but not guaranteed)	2a, b, c, d, e, h f (to \$7,500) g (480-1,000 sq. ft.); a temporary building for residence use		4a	5c 5f (90-day notice)	6a (90 days) 6b	7a, b, c, d
PRIVATE Large Developer "A"	Fee simple title	2a, or mobile home on permanent foundation, 2c, d					
Large Developer "B"	Fee simple title	2a, c, d; suggest 4 registered contractors					
Small Developer "C"	Fee simple title	2a, c, d (2-section mobile homes allowed or construction; no trailers)					
Individual Transactions	Fee simple title		3c, d				

^a See the Key to Conditions following Table XIII-3D.

Source: Special Use Permits of U.S. Forest Service; lease documents of State of Pennsylvania; sales information from private landowners; appraisal report of individual sales.

Table XIII-3B. Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of Wisconsin.

Ownership and/or Administering Agency	Condition Items ^a						
	1 Term	2 Construction of Building, Alterations	3 Maintenance of Building/ Grounds	4 Transfer Ownership	5 Cancellation Notice	6 Termination Conditions	7 Occupancy Conditions
FEDERAL GOVERNMENT Forest Service	1a, 1b (20 years)	2a, b, c, d, h	3a, b, c, d, e to FS standards	4a, b, c	5a, b, d	6a, b	7a, b
STATE GOVERNMENT State Forests	1c (before 1974)	2a, b	3b, c, d	None stated	5d 5g (30 days)	6a (before expiration) 6c (after expiration)	7f
State Parks	1d (1964); in litigation; all expired			None; all leases have expired	b (10 years as of 1954 renewals)		
PRIVATE OWNERSHIP Developer "A" (large)	Fee title	Protective covenants; single-family; 2g (760 sq. ft.) 2a, b, d		Sale; protec- tive covenants continue			
Developer "B" (small)	Fee title	Protective covenants 2g (480 sq. ft.) 2a, b, d		Sale; protec- tive covenants continue			

^a See the Key to Conditions following Table XIII-3D.

Source: Special Use Permits of U.S. Forest Service; lease documents of State of Wisconsin; sales information from private landowners.

Table XIII-3C. Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of Washington.

Ownership and/or Administering Agency	Condition Items ^a						
	1 Term	2 Construction of Building, Alterations	3 Maintenance of Building/ Grounds	4 Transfer Ownership	5 Cancellation Notice	6 Termination Conditions	7 Occupancy Conditions
FEDERAL GOVERNMENT							
Forest Service	1a, b (20 years)	2a, b, c, d	3a, b, c, d	4a, b, c	5b, h	6a, b	7f
National Parks (for Bureau of Reclamation)	1b (25 years); expire 1979- 1984	2a, b	3a, b, c, d, f	4a, c	5b, h	6a (90 days) 6b, 6c (after 90 days) 6d (if 6c is exercised)	
PRIVATE OWNERSHIP							
Weyerhaeuser Properties, Inc.	99 years	Single-family, 2a, b, c, d, j	3a, b, c	4a	5b	6a (60 days) 6b, e, f	6d (over 90 days per year)
Developer "A"	Fee title	Covenants 2a, c, d 2g (650 sq. ft. or more)		Sale			
Developer "B"	Fee title	Restrictive covenants assumed		Sale			
Individual Sales	Fee title	With and without covenants		Sale			

^a See the Key to Conditions following Table XIII-3D.

Source: Special Use Permits of U.S. Forest Service and National Park Service; lease documents from Weyerhaeuser Properties, Inc.,; sales information from private landowners; appraisal report of individual sales.

Table XIII-3D. Comparison of conditions for occupancy of vacation home site parcels under varying ownerships, State of California.

Ownership and/or Administering Agency	Condition Items ^a						
	1 Term	2 Construction of Building, Alterations	3 Maintenance of Building/ Grounds	4 Transfer Ownership	5 Cancellation Notice	6 Termination Conditions	7 Occupancy Conditions
FEDERAL GOVERNMENT							
Forest Service	1a 1b (10 years, issued in 1960)	2a, b, c, d, e	3a, b, c, d	4a, b, c	5b, h, j 5d	6a, b, g	7d
Bureau of Land Management	Fee title	2d		Sale			
PRIVATE OWNERSHIP							
Developer "A"	1b (15 years anticipated; term not final; legal document pending)	Purchase of relocatable home from lessor, 1,200-1,400 sq. ft. floor space	Not available; legal document pending	None	Not available; legal document pending	6a	Club-community membership required
Developer "B"	Fee title	2a, c, d plus covenants, conditions, and restrictions		Sale; continue covenants and restrictions			
Developer "C"	Fee title	2g (600-1,000 sq. ft. minimum) 2a, c, d, plus covenants, conditions and restrictions		Sale; continue covenants and restrictions			
Individual Sales	Fee title	2c, d, may or may not have covenants, conditions and restrictions		Sale			

^a See the Key to Conditions following Table XIII-3D.

Source: Special Use Permits of U.S. Forest Service, Bureau of Land Management Field Office at Riverside, California; lease documents of private landowners; appraisal reports of individual sales.

Key to conditions for occupancy of vacation home parcels
(accompanying Tables XIII-3A, 3B, 3C, 3D).

Key

1. TERM

- a. Terminable, year-to-year
- b. Term (years)
- c. Tenure based on amortizing improvement value
- d. Expired
- e. Specific termination date
- f. Life tenancy

2. CONSTRUCTION

- a. Plans approval
- b. Tree removal approval
- c. Code conformity (bldg/elec)
- d. Federal/state/local regulations
- e. Plans by registered architect/engineer/equivalent service
- f. Value limitation
- g. Size limitation
- h. Water supply approval
- j. Start within 2 years

3. MAINTENANCE

- a. Repair/maintenance of building
- b. Sanitation
- c. Safety/fire prevention
- d. Neat/clean
- e. Mowing/raking grounds
- f. Prevent soil erosion

4. PERMIT TRANSFER

- a. Subject to advanced approval by administering agency
- b. Subject to new conditions
- c. Subject to new term

Key

5. CANCELLATION CONDITIONS

- a. During permit term: 30 days notice; government purchase of improvement; cancellation in public interest
- b. Termination on breach of conditions
- c. Six months notice if site needed for high public use
- d. Existing objective: 10 years notice of government intent to terminate
- e. If improvement deteriorated, terminal period based on \$100-per-year amortization of improvement value
- f. Lessee may terminate
- g. Delinquency in rent payment
- h. Discretion of administering agency
- j. Disorderly/objectionable conduct

6. TERMINATION CONDITIONS

- a. Owner removes building
- b. Restores site to original condition
- c. Building remains lessor's property
- d. Cost of removal/restoration payable by permittee
- e. Return of initial leasing fee
- f. If eminent domain termination, lease and severance adjustment made
- g. If improvement destroyed by fire/casualty, and rebuilding not feasible, permit will be terminated

7. OCCUPANCY CONDITIONS

- a. Not a permanent residence
- b. Recreation residence
- c. Health residence/doctor permit
- d. Subletting requires written consent
- e. Minimum annual occupancy (days)
- f. No commercial use

VI. CHARGES FOR VACATION HOME PERMITS AND LEASES

Before discussing existing policies of Government agencies and private ownerships with regard to permit and lease charges on vacation home sites, it is appropriate to review practices normally followed in establishing such charges and the reasons for such practices.

A. General Criteria for Lease/Permit Rates

Some of the basic factors to be considered in determining permit fees or lease rents include: (1) value of the property for its best current use; (2) a rental rate which amortizes the cost incurred for the development, administration, and maintenance of the property for its present use, plus a satisfactory return on the investment in the property; (3) reasonable comparability of basic rent to competitive offerings of similar quality; (4) provisions for periodic readjustment of the minimum rent to cover changes in prevailing economic conditions such as cost of living increases, cost of maintenance and tax increases, and increases in prevailing rates of return; and (5) a reduction allowance based on the retention of rights, easements, or privileges by the lessor, or for services usually performed by the lessor but assumed by the lessee.

In order to apply factors (2) and (4) mentioned above, a cost accounting system is basic.

B. Charges for Vacation Home Permits by Federal Agencies

Annual charges for Special Use Permits on vacation home sites on Federal lands have been undergoing review and change. Historical trends in rates, existing rates, and the basis for determining them are discussed below.

1. Forest Service

a. Historical Trends in Rates and Policy. During the early 1920's permit for cabin sites in National Forests carried rates of \$5, \$10, or \$15 per year. In that era there were probably no other leased lands for recreation use and little demand for them; therefore, a comparison of rates with competitive properties during that time cannot be made. However, it is an accepted fact that permits were arbitrarily set at a low rate to acquaint the general population with conservation and recreation use of wilderness and forest areas. Such use was limited because of the relatively low rate of automobile ownership and the poorly developed road system.

Accounting information is not available on the cost of bringing vacation home sites into use and of administering vacation home permits either initially or currently. Consequently, rental rates cannot be evaluated against that basic criteria of rate determination. It is assumed, however, that the rates charged initially did not cover the cost, but did achieve the initial objective of encouraging recreation use of the forests.

Based on a review of rates on long-established sites in several National Forests, shown in detail in Table XIII-4, there seems to have been only one general rate increase from the origin of permits through 1955. That one increase usually amounted to about \$5 in the annual rate, although it was slightly higher for some sites where all lots within a single area were placed on an equalized permit fee.

Permit fees, based on 5 percent of appraised values, resulted in a substantially greater increase than any previous rate increase. The rate increases, according to a sampling of records from Forest Service field offices generally ranged from \$20 to \$125 (with a few as high as \$200), averaging about \$50 per site. However, to lessen the shock of such an abrupt increase, it was decided by the Forest Service that in the interest of public relations with permittees, the rate increase in 1967 would be phased in annual increments over a 5-year period, from 1967 through 1971. Consequently, rates established in accordance with the GAO directive will not be fully realized until 5 years after they were determined applicable.

b. Permit Fees Reported by Permittees. To determine rate changes over time, permittees were asked in the mail survey to report the highest permit fee paid during each 5-year period since 1935, and annually since 1965, for the intervals in which they held permits. The responses indicated that permit fees before 1935 ranged from \$10 to \$30 annually; in 1968 they ranged from \$10 to \$300 annually. The average (mean) fee in 1968 was between \$61 and \$66 per year, an increase of about \$45 above that charged during the period before 1935; another \$25 will be added to the average by 1971.

	Reported Range in Fees	Approximate Mean
Before 1935	\$ 10 - 30	\$ 15 - 19
1968	10 - 300	61 - 66
Scheduled for 1971	25 - 350	84 - 90

Detailed data as to the number of permittees paying each level of fee as the highest amount charged for their permit during 5-year intervals are shown in Tables XIII-5A and 5B.

Table XIII-4. Examples of annual fees on vacation home sites in National Forests.

Location and Year	Annual Fee in Dollars	
<u>Snoqualmie National Forest</u> <u>Naches District</u>		
1919		\$ 15
1956		30
1962		40
1967 ^a		57
1968		74
1969		91
1970		108
1971		125
<u>Mount Hood National Forest</u>		
1925		\$5 & \$10
1926		15
1956		36
1962		40
1967 ^b		44
1968		48
1969		52
1970		56
1971		60
<u>Olympic National Forest</u>		
	<u>Waterfront</u>	<u>Nonwaterfront</u>
1924 and earlier	\$ 10	\$ 10
1925	15	12
1956	34	25
1962	70	40
1967 ^c	81	44
1968	92	48
1969	103	52
1970	114	56
1971	125	60
<u>San Bernardino National Forest</u>		
	<u>Average Fee</u>	<u>Highest Fee</u>
1910	\$ 15	\$ 15
1953	40	45
1959	40	70
1964	40	110
1970 ^d	95	e
1971	150	
1972	200	

^a \$85 increase authorized; phased as 5 increments of \$17 each.

^b \$20 increase authorized; phased as 5 increments of \$4 each.

^c \$55 increase authorized on waterfront sites; phased as 5 increments of \$11 each.

\$20 increase authorized on nonwaterfront sites; phased as 5 increments of \$4 each.

^d \$160 increase authorized in 1969; phased as 3 increments of \$55, \$55, and \$50.

^e Under special study as \$600 fee indicated by appraisal data.

Source: Field Study by DMJM Economics, February 1969.

Table XIII-5A. History of permit fees as reported by permittees for vacation home sites in National Forests.

	Number of Permittees During Each Interval											Maximum Scheduled
	Before 1935	1935-1939	1940-1944	1945-1949	1950-1954	1955-1959	1960-1964	1965	1966	1967	1968	
Permit During Period	50	67	88	140	214	340	481	518	551	579	609	610
Permit Fee Not Stated	15	22	31	46	51	89	110	84	92	78	26	11
Reported Fee Paid	35	45	57	94	163	251	371	434	459	501	583	599
Highest Annual Fee Paid:												
\$10 or Less	11	5	5	3	5	5	0	0	1	1	1	0
\$11 to \$20	17	31	36	45	43	18	8	3	2	1	-	0
\$21 to \$30	7	7	12	36	69	88	103	78	70	61	40	17
\$31 to \$40		2	3	8	36	80	96	122	112	107	113	56
\$41 to \$50			1	2	8	34	76	93	104	99	118	131
\$51 to \$60					2	11	29	41	47	79	90	63
\$61 to \$70						9	22	26	23	32	50	43
\$71 to \$80						6	17	26	30	32	50	45
\$81 to \$90							3	8	9	11	24	36
\$91 to \$100						1	13	23	38	37	50	55
\$101 to \$120							3	10	15	26	19	34
\$121 to \$140							1	3	5	8	13	30
\$141 to \$160								1	2	1	6	36
\$161 to \$180									-	3	2	13
\$181 to \$200									-	-	2	11
\$201 to \$220									1	2	4	8
\$281 to \$300										1	1	2
\$301 to \$350												1
Mean of Midpoints	\$15	\$17	\$18	\$21	\$25	\$34	\$42	\$48	\$52	\$56	\$61	\$84
Mean of Maximums	19	21	23	26	30	39	47	53	57	62	66	90
Source: Mail Survey of permittees, May 1969, DMJM Economics.												

X

Permit fees reported by permittees vary by state and census region. A summary of current fees by census region is listed in Table XIII-6. As may be seen in this table, fees in the West and South are higher than those in the Northeast and North Central Census Regions.

Table XIII-6. Permit fees in National Forests by census region.

	Location of Forest, by Census Region				
	U. S.	West	North-east	North Central	South
Average fee paid in 1968	\$60	\$65	\$47	\$46	\$ 54
Average maximum fee scheduled through 1971	85	93	44	49	100
Source: Mail survey with permittees, May 1969, DMJM Economics.					

Among states in the Western Region, Nevada, Idaho, and California had the highest average fee in 1968; Colorado and Wyoming had the lowest. In all western states, an increase in fee over that paid in 1968 was scheduled. These data are summarized in Table XIII-7.

Table XIII-7. Permit fees by states - 1968.

	1968 Fee Paid	Maximum Fee Scheduled Through 1971
California	\$75	\$124
Oregon	78	106
Washington	68	80
Arizona	62	80
Colorado	35	65
Idaho	84	88
Montana	54	63
Nevada	88	125
New Mexico	58	59
Utah	51	53
Wyoming	43	63
Source: Mail survey with permittees, May 1969, DMJM Economics.		

c. Evaluation of Permit Fees Based on Valuation of Sites. According to estimates made by mail questionnaire respondents, the average fair market value of their permit sites (based upon the 1968/1969 selling prices of comparable privately owned sites) ranged between \$1,500 and \$2,000. These data are shown in Table XIII-8. At 5 percent of market value, the average permit fee would range from \$75 to \$100 per year in 1968/69. However, these same respondents reported that their average permit fee for 1968 was \$60; by 1971 when the full rate change had been phased, they expect to be paying an average fee of \$85. Thus, there is reasonable comparability between the fair market value of the sites as estimated by both the permittees and the Forest Service.

d. Conditions Which New Fee Policy Tends to Correct. The new policy of establishing fees on a firm basis, with provisions for periodic readjustment, conforms to proper leasing principles and tends to correct some of the problem areas inherent in the old policy of arbitrary fees and long intervals between reviews and changes in rates.

New rates are expected to cover the cost of administering vacation home permits. Although this cannot be confirmed without benefit of a cost-accounting system, it is considered probable by Forest Service field personnel responsible for the administration task. Rates on permits prior to 1962 and possibly even to 1967 were considered either inadequate or possibly margin for this purpose, although this opinion cannot be supported for lack of cost accounting data.

The new, higher permit fees should help to reduce speculative sales of vacation homes. This, in turn, would help eliminate the extra inspections, field work, and clerical record-keeping associated with site turnover. Private land owners will no longer experience unfair competition from Government lands that were formerly available at below market prices. This has been a complaint in the past.

Criticism will be avoided concerning public subsidization of vacation home permits if the permit fees are comparable to similar opportunities on private land.

e. Taxes on Vacation Home Sites and Improvements, National Forests. The Federal Government assumes the tax obligation on the vacation home permit sites as it does on all federally-owned land. The obligation is an in-lieu of tax payment, amounting to 25 percent of the revenue received from the use of the land. On this basis, in-lieu

Table XIII-8. Permittees' evaluation of selling prices
for comparable private parcels.

Price Range	Number of Responses	Estimated Values Within Range		
		Low	Medium	High
Under \$500	72	\$ 250	\$ 350	\$ 450
\$500 to \$999	100	500	700	900
\$1,000 to \$1,499	100	1,000	1,200	1,400
\$1,500 to \$1,999	68	1,500	1,700	1,900
\$2,000 to \$2,999	62	2,000	2,500	2,900
\$3,000 or more	137	3,000	3,500	3,900
No Answer	<u>71</u> 610			
Total Response	539			
Average Value		\$1,500	\$1,800	\$2,000
Applicable Fee, Based on 5% of Fair Market Value		\$ 75	\$ 90	\$ 100
Source: DMJM Economics, based upon mail survey of permittees, May 1969.				

payments contributed by permit fees have ranged from \$2.50 when the fees were \$10 per year to an average of about \$10 during the late 1950's when the average fee was about \$40 to \$15 or \$16 in 1968. However, on those sites for which a \$300 fee was reported in 1968, the in-lieu tax payment would have been as high as \$75.

In some states the permittee is assessed a possessory interest tax on the use of the land, but this occurs so seldom, that most respondents in the mail survey interpreted their permit fee as being a possessory interest tax on the use of the land.

About 87 percent of the permittees reported paying personal property tax on their vacation home improvement; 4 percent mentioned that none was paid; and the remaining 9 percent didn't know or didn't answer. About one-half of the respondents paid less than \$60 in personal property tax on their vacation homes. The tax paid in 1968 is shown in the following distribution:

No tax	4.3 percent
\$ 1 - \$ 20	10.3 percent
\$ 21 - \$ 40	21.0 percent
\$ 41 - \$ 60	18.0 percent
\$ 61 - \$ 80	11.8 percent
\$ 81 - \$100	9.0 percent
\$101 - \$140	9.6 percent
\$141 - \$180	5.2 percent
Over \$180	2.1 percent

The average tax paid on improvements, for the 91 percent who reported either the amount paid or no tax levied, is calculated as approximately \$62.

Higher taxes on improvements were reported for vacation homes in the West and North Central Census Regions; in the Northeast and South, all permittees reporting taxes paid less than \$100. However, in the East, one-third of the respondents did not report whether they were taxed on their improvement.

There is a tendency for permittees to refer to the combined total of taxes and fees as their contribution to Government (local and Federal) for their vacation home privilege. The combined fees and taxes for 1968 are summarized in Table XIII-9.

Table XIII-9. Combined total of permit fees and taxes on land and improvements.

Combined Permit Fees/Taxes	Total Respondents	By Census Region			
		West	North-east	North Central	South
\$100 or less	36%	35%	50%	34%	47%
\$101 to \$200	43%	47%	14%	42%	33%
Over \$200	10%	11%	-	13%	-
Not fully answered	11%	7%	36%	11%	20%
Average amount of fee plus taxes among respondents answering fully	\$127	\$131	\$79	\$128	\$94
Source: Mail survey with permittees, May 1969, by DMJM Economics.					

2. National Park Service

Permit fees for vacation home sites in two National Recreation Areas administered by the National Park Service, have not been increased from the original fee of \$35 per year. These permits were first let between 1954 and 1959. A rate review is currently in progress and field offices expect the rate will be increased to the general range of the rate now applicable for vacation home permits in National Forests.

3. Identification of Problem Areas Related to Permit Fees

From the standpoint of the Government the more permit fees are increased (and they can be expected to increase on the basis of 5 percent of fair market value), the more pressure the Government will experience from permittees, their congressional representatives, and their homeowner organizations to sell the land to the permittees or to allow them to acquire it by land exchange policies. The permittees would probably attempt to convert their investment in the improvement into an equity interest in land, since most of them have never understood that it was an expendable investment.

As permit fees increase, the in-lieu of property tax payment to local governments may become excessive. The Government will probably continue to be pressured by permittees and their organizations regarding permit fees because permittees do not want to acknowledge that fees prior to the new determination were nominal and below market value and perhaps even subsidized. Consequently, they will rationalize that the new structure is unreasonable, inflationary, and representative of a 200, 300, or even larger percentage increase over initial rates.

Permittees will question the value of use (at 5 percent of fair market value) as being realistic for a purpose which does not permit permanent use of the residence and other restrictions. Adjustments, though equitable, may give rise to complaints. The procedure for phasing fee increases over a 5-year period, rather than effecting the entire increase as soon as justified, results in a collection loss of 40 percent of the increase to the Government.

Since new rates substantially increase annual fees, permittees express considerable dissatisfaction over having their improvements on leased land. Although permittees now view this as a problem on existing permits, the new fee structure will encourage the purchase of private land over leasing of public land for residential use.

The general public will benefit from the move to a higher, more equitable rate because it will help offset the cost of administration and subsidization of vacation home sites by increased returns to the treasury. The new rate may still be insufficient to cover costs. Until a cost accounting system is developed to determine income and expense for this purpose, it is not possible to evaluate the extent to which this problem will remain.

Private owners of potential vacation home lands, particularly owners of lands which are intermingled with National Forest land, have an even greater stake in the Government's charging adequate rates for the use of Federal lands. Competitive rates which cover costs and provide a return on equity, will enable the private owner to develop his land for similar purposes. Private land otherwise remains idle or is diverted to a lesser order of use.

C. Charges for Vacation Home Sites on State Lands

The State of Pennsylvania charges a fee of \$25 per year for cabin site leases in their State Forests. Their rate is considered approximately equal to the value of forest growth which would have been realized from the land if cabin sites were not permitted. It was originally estimated

by the State that 1 acre occupied by four cabin sites should yield \$100 annually to compensate for loss in forest growth. However, State Administrators feel there may be a need now to revise lease rents upward not only to cover the increased value of forest growth, but also the cost of administering permits. As yet, no cost accounting system has been implemented to determine administrative costs. Any changes in fees would, undoubtedly, be limited to the 10-year renewal interval of the lease since there is no clause providing for interim review and readjustment of the lease rate.

The State of Wisconsin charges from \$60 to \$130 per year for cabin sites on State Forest lands. The rate for any lease is applicable for only 2 years, but will probably remain at about the same range during the final liquidation of their 16 remaining leases. On State Park lands, the lease rate for cabin sites is \$75 per year for the remaining tenure on leases acquired as part of a purchase of State Park lands. These leases will expire in 1971 and will not be renewed. Again, no accounting has been made to determine adequacy by charges.

D. Charges for Vacation Home Sites on Private Lands

I. Lease Rates

Weyerhaeuser Properties, Inc. leases forest lands for vacation home use in the State of Washington. Their lease rates are comprised of: (1) initial payment to obtain the leasehold, which ranges from \$1,000 to \$2,500, as reimbursement to the lessor for the cost of improving the roads, leveling the land, installing a water system and bringing electricity to each lot; (2) an annual rental fee of \$150 per site based upon 6 percent return on fair market value (which would make the market value of the site \$2,500); (3) a rent adjustment at 10-year intervals equivalent to 6 percent of the new appraised value; (4) a \$25 fee for transfer of the lease in the event of transfer of ownership of the improvement, to cover administrative and clerical costs; (5) a provision wherein the lessee pays the property tax attributed to the site leased, and any assessments by governmental authority or public or private community enterprises.

North Pacific Railway Company charges \$275 per year for its most desirable cabin site leases, usually on waterfront property, and \$125 per year for nonwaterfront lots. Rental rates are adjusted every 3 years. The basis for determining the lease rate is a percentage return (equivalent to 1 percentage point above the prime interest rate large city banks charge their preferred borrowers) on the fair market value

of the land. In addition, lessees pay the annual tax chargeable to the parcel - approximately \$15 for waterfront lots and \$10 for nonwaterfront lots. It appears that land taxes on vacation home sites are averaging less than 25 percent of income paid to states out of rental on vacation home sites on Federal lands.

Pacific Gas and Electric Company of San Francisco leases 175 sites for recreation residence use. Rental rates range from \$90 to \$175 per year and are reviewed and adjusted every 5 years on the basis of returning 7 to 8 percent of fair market value of the property annually. In appraising the property, consideration is given to amenities and to restrictions in use.

Southern Pacific Company also makes annual revisions in rents based upon the Cost of Living Index measured in January of each year. Lessees also pay their proportionate share of taxes and assessments applicable to the land as well as personal property tax on the improvement.

In one private development in California, where the residence site (for a relocatable vacation home) is part of a club membership, the total membership fee ranges from \$2,100 to \$2,500 per year. The lessor has not assigned a proportion of that fee as lease rent since parcels are not leased separately. However, from a review of the membership privileges, it is estimated that from 50 to 75 percent of the value is attributable to use of a vacation home site.

Lease rates on residential lots in an ocean-oriented residential community in Orange County, California (Irvine Ranch) are estimated to average from \$240 to \$400 per year, plus a possessory interest tax on the value of the land. The lease rate is based on a minimum return of 6 percent on the unimproved value of the lot (average \$4,000) and a maximum return of 6 percent on the improved value of the lot (average \$6,700). Lots within choice areas of this development range much higher in value, but the above values are considered "average" by the property management company. Although most improvements on this development are permanent residences, proximity of the site to ocean and recreation-oriented areas makes it ideal for second-home development as well.

2. Selling Prices

Selling prices of properties directed toward the vacation home or second home market have a wide range, depending on the location of the parcels, supply of similar properties, demand in the area, and the characteristics of the property itself. Some of the major characteristics which influence selling prices include: size of lot, water frontage, view, type of terrain, access from population centers, environment, climate, and development concept and character.

When properties are developed for vacation home subdivisions or communities, with the developer absorbing the cost of road, utilities, and sometimes public facilities (such as community center, golf course, etc.), residential lots ranged widely in price from \$2,500 to \$28,000 in Pennsylvania, from \$1,250 to \$4,000 in Wisconsin, from \$4,500 to \$6,000 in the State of Washington, and from \$3,500 to \$5,000 in California.

In each state however, individual lots are sold in locations suitable for a vacation home at much lower prices, in the general range of \$1,000 to \$2,000, but without the services and amenities offered by the subdivision type of properties.

Almost 90 percent of the permittees answering the mail questionnaire reported that private parcels are available for vacation home sites in the general vicinity of their permit site or permanent residence. They estimated the selling price of these private parcels as:

Less than \$1,000	28 percent
\$1,000 to \$1,999	28 percent
\$2,000 to \$2,999	10 percent
\$3,000 or more	23 percent
No answer	11 percent

E. Summary of Permit Fees, Lease Rates, and Selling Prices of Vacation Home Sites, by States

Tables XIII-10A, 10B, 10C, and 10D summarize the permit fees, lease rates, and selling prices of vacation home properties discussed in the preceding text, and present the data on a state-by-state basis. Almost without exception, mountain, wooded, or water-oriented lots are being sold for minimums of \$2,000 to \$5,000. If permit fees are based on 5 percent of fair market value, then it should not be unusual to have annual permit fees for this use of Federal lands ranging from \$100 to

Table XIII-10A. Comparison of charges for occupancy of vacation home site parcels under varying ownerships, State of Pennsylvania.

Ownership and/or Administering Agency	Category of Land Use	Number of Parcels	Cost			Status
			Annual Rent	Purchase Price	Additional Charges	
FEDERAL GOVERNMENT						
Forest Service	Vacation-home special permit	220	\$45.00	Not for sale	Fee for timber cut or damaged	All occupied; no new offerings
National Parks		None				
Bureau of Land Management		None				
STATE GOVERNMENT, PENNSYLVANIA						
Department of Forests & Waters	Cabin-site leases	4,555	\$20.00 to \$25.00	Not for sale	Initial fee \$100 for survey/lease	State residents only; all occupied; no new offerings
Department of State Parks	Cabins built in 1930's by CCC on State Lands	160	Rent ranges from \$25 to \$37 per week	Not for sale		Demand far exceeds supply; reservations and occupancy limited: 1 week, state residents
PRIVATE OWNERSHIP						
Large Developer "A" Planned Community	Recreation-oriented: lakes, skiing, stables, pool, courts, community social building	4,254 acres; 4,000 lots; mostly 1/2- acre parcels		Average: \$7,000 lot; range: \$4,000- \$28,000		1,600 lots sold; 435 dwellings started
Large Developer "B" Planned Community	Recreation-oriented: lake, golf, stable, beach, recreation building	1,053 acres; 1,250 lots; 1/3 acre and 1/2 acre		\$3,000 originally; \$5,000 now except 1/2 acre on golf course frontage, \$12,000		
Small Developer "C" Planned Community	Recreation-oriented: pool, courts	244 1/2-acre lots; 56 1-acre lots		\$2,500-\$3,500 per 1/2 acre		
Individual Transactions	Individual parcels	198		Average: \$1,106 per acre; range: \$125 to \$9,100 per acre		198 sales in Warren, McKean, Forest and Elk Counties, mostly in 1965
Source: U.S. Forest Service; State of Pennsylvania Department of Forests and Waters and Department of State Parks; owners of private developments; appraisal report of individual sales transaction; DMJM Economics.						

Table XIII-10B. Comparison of charges for occupancy of vacation home site parcels under varying ownerships, State of Wisconsin.

Ownership and/or Administering Agency	Category of Land Use	Number of Parcels	Cost			Status
			Annual Rent	Purchase Price	Additional Charges	
FEDERAL GOVERNMENT Forest Service National Parks Bureau of Land Management	Vacation-home special permit	30 None None	\$50-\$60	Not for sale	Fee for timber cut or damaged	All sites occupied; no new offerings
STATE GOVERNMENT, WISCONSIN CONSERVATION DEPARTMENT State Forests/Islands	Recreation leases	16	\$60-\$130	Not for sale	Fee for timber cut or damaged	General policy since 1954: terminate; inequitable; favors a few Originally over 1,000 leases; most terminated before 1954, when all termination sched- uled by 1964; remaining few will terminate 1974 or earlier
State Parks		150	\$75	Not for sale		75 will expire 1971; 2 are life tenancies; 73 expired 1964, but cottage holders refused to vacate; litigation in progress
PRIVATE OWNERSHIP Developer "A" (large) (5 similar projects; most recent one listed here)	Constructed artificial lake; developed shoreline and off- shore lots with lake access	2,100 lots (approx- imately 1/3 acre each)		\$4,000 shoreline lot \$2,000 offshore lot		Sold 180 in first year (1968)
Developer "B" (small)	Second-home area subdivided from tree farm; roads and sewer system provi- ded by developer	280 lots (approx- imately 1 acre each)		\$950 initially; increased to \$1,250 per lot		Sold 280 lots in 4 years; property developed over 15- year period by planting Jack Pine on wornout farm- land
Individual Transactions (Per State Department of Recreation)	Lake-front vaca- tion home sites			\$50 to \$600 per front foot; back lots at 50% less (Average market value in 1966 of vaca- tion residences, including home and site = \$15,000)		Very little supply except on man-made lakes
Source: U.S. Forest Service; State of Wisconsin Conservation Department; owners of private developments; State Department of Recreation Vacation Home Study; DMJM Economics.						

Table XIII-10C. Comparison of charges for occupancy of vacation home site parcels under varying ownerships, State of Washington.

Ownership and/or Administering Agency	Category of Land Use	Number of Parcels	Cost			Status
			Annual Rent	Purchase Price	Additional Charges	
FEDERAL GOVERNMENT						
Forest Service (6 forests)	Vacation-home special permits	1,050 approximately	Snoqualmie: \$75-\$100; Olympia: \$48 or \$92	Not for sale	For timber cut or damaged	Considered 100% occupied; no new offerings
National Parks (administer for Bureau of Reclamation)	Cabin sites	27	\$35		For damages resulting from use	All sites occupied since early 1950's; no new sites planned
Bureau of Land Management	Small tract sales	None sold since 1962, approximately		River tracts: \$1,000-\$1,500 per parcel; upland: \$200 (2-1/2 acre parcels)		
STATE GOVERNMENT (Public Lands Department: parks, trust land, game land)	Summer home-site leases	None (occasional trespasser builds; if parcel has access, state sells)		Advertise sale by bid at not less than appraised price		
PRIVATE OWNERSHIP						
Weyerhaeuser Properties, Inc.	Summer home-site leases	47	\$150	Not for sale	Initial fee of \$1,000-\$1,500;	Rental adjustment each 10 years to 6% of fair market value
		10	\$150	Not for sale	\$1,300-\$2,500 plus \$25 transfer fee	
Developer "A"	Second-home planned community; waterfront and upland	12,000		\$4,500 up, per parcel of approximately 1/6 acre		
Developer "B"	Recreation residences in ski area	Subdivision		\$5,000-\$6,000 per parcel of approximately 1/6 acre		
Individual Sales Transactions (1966)	Recreation residence near ski area	5		Average: \$4,200; range: \$3,800-\$7,500; 1/4- to 1/5-acre per parcel		
	Wooded and meadow area	7		Average: \$2,750; range: \$1,800-\$3,400		
Source: U.S. Forest Service, National Park Service, and Bureau of Land Management; State Lands Department; private owners of second home properties; appraised reports of individual sales transactions; DMJM Economics.						

Table XIII-10D. Comparison of charges for occupancy of vacation home site parcels
varying ownerships, State of California.

Ownership and/or Administering Agency	Category of Land Use	Number of Parcels	Cost			Status
			Annual *Rent	Purchase Price	Additional Charges.	
FEDERAL GOVERNMENT						
Forest Service (data obtained from Angeles and San Bernardino National Forests)	Vacation-home special permits	9,000 approximately	Angeles: \$50 to \$100; San Bernardino: \$40 to \$110; delinquency fee	Not for sale	\$25 transfer fee; also charge for timber cut or destroyed	These two forests account for 2,600 vacation-home permits; all sites occupied; no plans for new offerings
Bureau of Land Management	Small tract sales, desert land (2-1/2- and 5-acre parcels)	Average of 1 or 2 sales per week (auction); 1968: 43 parcels sold; 1967: 67 parcels sold; 1966: 162 parcels sold; 1965: 424 parcels sold		Usually purchased at appraised values; 1968: \$306 per acre average; 1967: \$278 per acre average; 1966: \$295 per acre average; 1965: \$212 per acre average	Miscellaneous costs to \$100 per purchase	Keep approximately 200 parcels on availability list; best sites went first
National Parks		None				
STATE OF CALIFORNIA						
State Forests		None				
State Parks		None				
PRIVATE OWNERSHIP						
Developer "A"	Ocean-oriented vacation-home club community; golf, recreation	700 parcels for re- locatable homes; 300 parcels for mobile homes	Lease rent of \$2,100 -\$2,400 per year includes club/com- munity membership	Not for sale	Relocatable homes for sale by lessor at \$18,000 per unit	Scheduled to start home construction, summer 1969
Developer "B"	Redwood-forested second-home community	4,700 lots, 1/3 or 1/4 acre per parcel (2,600 acres)		Average \$5,000 for a 1/3-acre parcel	Sales contract of \$100 down and \$50 month with carrying charges	Sold 3,700 lots in 3 years; 40% of the 2,600 acres dedicated to com- munity and recreation; developer retained 2,400 surrounding acres for large-parcel sales
Developer "C"	Summer and winter mountain retreat and ski area; no lake	16 sales trans- actions 1968; lot size 60 x 100		Sales price per lot averaged \$3,455		
Individual Sales (1966-67)	Desert property for winter-home recrea- tion use	1 - 1-acre parcel 2 - 2-1/2-acre parcels 8 - 5-acre parcels		\$900 per acre \$255 per acre \$210 per acre		
Individual Sales (1966-67)	Mountain property for second-home sites or investment	1 - 3-acre parcel 9 - 5-acre parcels		\$3,000 per acre \$2,850 per acre		
Source: U.S. Forest Service and Bureau of Land Management; State Forests and State Parks Departments; private owners of second home properties; appraisal reports of individual sales transactions; DMJM Economics.						

\$250 for average sites. Some fees of \$100 or more are beginning to come into use on vacation home permit sites, but most fees have not reached this level. In the mail survey conducted among permittees of vacation home sites in National Forests, 33 percent reported 1968 fees of \$50 or less; 40 percent indicated \$51 to \$100, and only 25 percent indicated more than \$100.

For a further understanding of land values in the vacation home market, and for a comprehensive report of appraisals being conducted to evaluate sites in the National Forests, six case studies on land values are presented in the appendix. The first two case studies are actual appraisals of National Forest sites, with the appraised price for each tract determined on the basis of current sales prices or lease rents for parcels which have comparable characteristics, and which are located in the general area. Following those two case studies, an additional four cases are reported, three of which discuss private developments of vacation home communities, their features and their sales prices. The final case study presents a determination of land values for desert-type properties which have some attraction as vacation home sites.

VII. PERMIT CONDITIONS AND ACTUAL PRACTICES REGARDING IMPROVEMENTS CONSTRUCTED ON VACATION HOME SITES ON FEDERAL LANDS

A. Permit Conditions Relating to Vacation Home Improvements

1. Time Period for Construction

Both the Forest Service and the National Park Service required that a permanent improvement be constructed on the vacation home site, within a time agreed upon between permittee and permittor. However, since some of these permits date back to the early 1900's, and since most permit sites had the improvement constructed prior to 1960, the time period specified for construction is no longer of the essence. Further, no instances of problems relating to this permit requirement have been noted. If an improvement was not constructed within a reasonable time, it would have represented a breach of contract and the permit would have been terminated.

2. Approval of Plans

Approval of plans for the development, construction, reconstruction, or alteration of improvements and for development of the grounds at the permit site is required in advance of construction by the Forest Service (or National Park Service, depending upon jurisdiction). This practice has become customary in most leasing agreements, particularly in planned subdivisions.

About 90 percent of the permittees responding to the mail questionnaire indicated an awareness of this condition. No problems other than an occasional minor complaint about the rejection of metal roof, color of paint to be used, or other materials was noted. It should be noted, however, that the review of plans is a cost factor in administration of permits.

3. Approval of Clearing for Improvement and Charge for Timber Cut or Destroyed

Trees and shrubbery on the permitted area may be removed or destroyed only after the forest officer in charge has approved and marked or designated which may be removed. Timber cut or destroyed will be paid for by the permittee according to specifications noted in the permit. The addition of trees, shrubs, and plants on the premises must also be approved by the forest officer in charge.

This is a desirable condition which is usually a part of covenants and restrictions even in the sale of wooded property. A few permittees have complained about this restriction, but it cannot be considered a problem area.

4. Maintenance of Improvements and Premises to Standards of Repair, Orderliness, and Safety Acceptable to Forest Officer (or National Park Service)

The administration of this condition of the permit is carried out by an annual inspection of the improvement and site, usually in the presence of the owner of the improvement. This often requires several attempts to complete the arrangement for the inspection. A written report is filed by the inspecting officer, with a copy to the owner indicating any work needed.

Second inspection on repairs, maintenance, or ground clearing specified in each annual inspection report adds inspection time and administrative cost. Case histories are available in some field offices which indicate that some permittees delay correction for several years and require a considerable amount of prodding to bring conditions up to standard. This does not appear to be a serious or prevalent problem, but when it arises, it adds to the administrative time and cost required for this use of National Forest lands. Some field offices have found it necessary to schedule inspections every 2 or 3 years rather than annually due to limited staff time.

5. Contract Clauses Covering Water and Sanitation Facilities, Utility Building, Road Maintenance

Some permits have additional clauses or alternate wording of previously mentioned clauses to cover the design, construction, and maintenance of these additional facilities, where applicable. In most instances the specification is stated in terms of approval of the forester in charge and/or local codes; however, some permits give more detailed requirements.

Forest Service administrators report that in some instances water pollution problems are encountered because of the type of soil in the area and/or because of the trend toward greater use of vacation residences. In tracts of vacation home sites, foresters suggest that sewage

treatment systems may be needed. Water pollution could become a more serious problem if year-around occupancy were ever approved or if public recreation facilities were added.

Administration of this permit clause requires inspection time and procedures and equipment for testing water quality.

B. Restrictions on Improvements, Facilities, and
Construction at Privately Developed Vacation Home
Communities

Since some permittees indicated there are too many restrictions on vacation home permits with regard to the improvement constructed and the land area used, it is appropriate to review the types of restrictions frequently placed on private-ownership parcels offered for vacation home use.

Most second home developments on private lands attempt to conform to good community design criteria by having protective covenants continue in perpetuity to subsequent owners of the property. Conditions included in the covenants are similar to protective conditions included in leases or permits for similar types of property - conditions which have been used in urban subdivisions and have proven helpful in long-range appreciation of values and satisfaction of land owners. The protective covenants usually include all or most of the following conditions:

- Single-family residence for sole use of owner
- No temporary buildings may precede the permanent residence
- Minimum ground floor area (for example: 760 square feet, excluding porches, garage, etc.)
- Building exterior completed in 6 months from start of construction
- Foundation specifications
- Approval of plans, acceptable exterior materials
- Conformity to county or other local regulations and codes
- Setback limitations from water's edge
- Limitation on cutting trees; maintenance of natural vegetation
- Limitations on temporary use of property for camping
- Design, location, and size of boat docks and piers limited
- Permission required for signs
- Formation of property owners association.

C. Actual Practices of Permittees Regarding Nature of Improvements and Level of Investment in Vacation Homes on Permit Sites

No records are maintained in the Forest Service field offices summarizing the nature of improvements or level of investments for all vacation homes within their jurisdiction, although files on each permit would contain some of these data. Consequently, such information was derived from the mail survey conducted as a part of the study task. The following description of the nature of the improvement and level of investment was given by permittees.

1. Type of Improvement on Permit Site

Permittees were asked, "Do you consider the structure (on your permit site) to be all-year construction, a summer home, a cabin, a ski lodge, or 'other answer'?" They replied:

All-year construction	32 percent
A summer home	31 percent
A cabin	43 percent
A ski lodge	1 percent
No answer	1 percent

Since the West Census Region represents such a large part of the total sample, the West seldom differs from the U. S. total. The major differences, by region, are: Northeast, a higher percentage of cabins; South, more all-year construction; North Central, more summer home and less all-year construction.

In the West, the States of Idaho, Utah, and Washington have a slightly lower share of all-year construction, but generally the distribution is the same: about 40 percent are cabins, 20 to 40 percent summer homes, and 20 to 40 percent all-year.

A similar question was asked regarding the type of structure acquired from previous permittees. The structures changing hands tended more toward cabin-type and less toward all-year construction than the total profile. Improvements acquired through purchase were described as follows:

All-year construction	21 percent
A summer home	22 percent
A cabin	54 percent
No answer	3 percent

2. Size of Improvement

Throughout all the National Forests respondents estimated the living space of their present vacation home improvement as:

Under 500 square feet	22 percent
500 to 999 square feet	53 percent
1,000 square feet or larger	23 percent
No answer	2 percent

This distribution was typical of that in the Western States, although Washington tended to have smaller cabins.

In the Northeast Census Region, the cabins were smaller; only 14 percent had 1,000 or more square feet. In the South Census Region, the improvements were larger, with 43 percent having 1,000 or more square feet. In the North Central Census Region, most of the summer homes were in the middle size range of 500 to 999 square feet.

3. Condition of Improvement Acquired by Purchase

The condition of the improvement at the time of purchase was indicated as follows:

Poor condition	20 percent
Fair condition	36 percent
Good condition	39 percent

4. Additions and Alterations of Improvements

Among the respondents who acquired a vacant site and built their present vacation home, about one-fourth made major changes after the initial construction; and one-fourth made minor changes. The remaining one-half made no changes.

Among the respondents who purchased an improvement from a previous permittee, 3 percent constructed a new residence, 35 percent made major alterations or additions, and 46 percent made minor alterations. The balance (16 percent) reported no changes.

5. Age of Improvement

Only 36 percent of the respondents - those who were the original permittees - could state the year in which the improvement was originally constructed. However, from the date the permit was acquired, it was estimated that at least 90 percent of the improvements were built before 1960 and more than 30 percent built before 1950.

The 221 respondents who had taken permits on vacant sites and constructed their recreation residence, reported the date of construction as follows:

Before 1930	9 percent
1930 to 1939	11 percent
1940 to 1949	10 percent
1950 to 1959	42 percent
1960 or later	27 percent
Still building	1 percent

The year of construction reported by the subsample of original permittees does not necessarily reflect the age of all vacation home improvements. The other description factors for improvements acquired by purchase, previously mentioned, suggests they might have been older than the age profile for all recreation residences in National Forests.

6. Cost of Improvement

In answer to the question, "What is your actual investment in your vacation home? (Include cost or inherited value, plus value added for your own labor; do not include maintenance cost.)" The response was:

Under \$3,000	16 percent
\$3,000 to \$4,499	20 percent
\$4,500 to \$5,999	13 percent
\$6,000 to \$7,999	14 percent
\$8,000 to \$9,999	8 percent
\$10,000 to \$14,999	11 percent
\$15,000 or more	6 percent
No answer	12 percent

The costs reported ranged from under \$500 to over \$40,000. The average cost of all vacation homes for which an actual investment cost was stated was \$6,820. Vacation homes in the Northeast Census Region (all of which were within Allegheny National Forest, and 61 percent of which were described as cabins) had an average cost of \$2,480; in the

North Central Census Region, \$5,104; in the South, \$7,111, and in the West, \$7,356. In the Western States, Washington reported the lowest average cost at \$4,825; Nevada and Idaho the highest at slightly over \$9,000.

Respondents were also asked to estimate replacement value of the present structure. Their estimates of replacement value averaged \$9,617 — or 40 percent more than their investment.

7. Financing the Cost of Improvement Homes

Financing of the vacation home improvement was extremely limited: 86 percent did not try to finance their improvement; 6 percent tried to obtain a loan and were successful; 4 percent tried to obtain a loan and were refused; and 4 percent did not answer the question. Refusals and even difficulty in obtaining loans were based on the improvement being on leased property instead of fee simple ownership.

8. Plans for Major Additions Within Next 3 Years

About 22 percent estimated that they would make a major addition to their vacation home within the next 3 years; 75 percent said "no" and 3 percent did not answer.

For those who planned to make major alterations or additions, the question of how long they will be able to retain the permit site was stated as being of utmost importance.

9. Maintenance and Repairs

In response to the question, "During 1968, how much did you spend for maintenance and minor repairs on your vacation home?" — permittees answered:

Under \$50	11 percent
\$50 to \$99	19 percent
\$100 to \$149	15 percent
\$150 to \$249	15 percent
\$250 to \$349	10 percent
\$350 or more	11 percent
Nothing spent	14 percent
No answer/Don't know	5 percent

About 4 percent of the respondents volunteered that fear of termination was delaying their decision to make improvements in their recreation residence.

10. Facilities and Services

About 95 percent of the permittees reported they had roads to their vacation home sites; 76 percent report having water inside their residences; 74 percent had electricity; 60 percent had septic tanks; and 15 percent had telephones.

About 22 percent report having police service, provided almost entirely by the county within which they were located. Twenty-five percent stated they had fire protection. Of these, 14 percent indicated Forest Service provided the fire protection; 10 percent stated the county; the balance did not indicate a particular agency.

The method of procurement and the estimated initial cost of the services - whether by the permittees own installation, jointly with neighbors, by previous owners, by the Forest Service or by the county - was also determined through the mail questionnaire. The responses, by type of service, are indicated below.

a. Roads and Road Maintenance. Only 13 percent of all respondents reported making some capital investment in the road. One-half of them had invested less than \$200 in roads; one-half of them had invested more than \$200. Installation of roads was accomplished as follows:

Installed my own	13 percent
Installed with neighbors	11 percent
Installed by previous owner	17 percent
Installed by Forest Service	36 percent
Installed by county	21 percent
Installed by utility company	1 percent

Road maintenance during 1968 was performed by the county (36 percent), by the Forest Service (37 percent) and by the permittee themselves to some extent (35 percent). Only 10 percent reported a charge for road maintenance during 1968 - mostly under \$30; an additional 3 percent reported that their homeowners association fee covered some road maintenance.

b. Water Inside Residence. Thirty-one percent of all respondents reported making some capital investment to install water inside their vacation home. One-half of them stated their initial cost was less than \$300; one-half stated \$300 or more. Water facilities were procured as follows:

Installed own	37 percent
Installed with neighbors	13 percent
Installed by previous owner	25 percent
No water inside	25 percent

c. Electricity. Twenty-two percent of all respondents reported making some capital investment for the installation of electricity. About one-half of them stated their initial cost was less than \$200; one-half said \$200 or more. Electrical facilities were procured in the following ways: 1/

Installed own	21 percent
Installed with neighbors	2 percent
Installed by previous owner	18 percent
Installed by utility company	36 percent
No electricity reported	26 percent

d. Septic Tank. Twenty-one percent of all respondents reported making some capital investment for the installation of a septic tank. About one-half of them stated their initial cost was less than \$200; one-half said \$200 or more. The procurement was an individual effort, either by the original owner of the improvement or by the subsequent owner who decided to add the facility.

VIII. PERMIT CONDITIONS AND ACTUAL PRACTICES REGARDING USE AND OCCUPANCY OF VACATION HOMES

A. Permit Conditions Relating to Use and Occupancy

All of the following conditions relating to use and occupancy of vacation home permit sites were taken from various samples of permits now in effect in several of the National Forests. Since each forest attaches supplementary conditions to the standard permit form to adjust the requirements to their own local situation, not all of the following conditions are found in every permit. However, the same use and occupancy conditions are usually expressed.

1. Use and Occupancy Requirements and Restrictions

Use of the recreation residence shall be exercised at least 15 days each year, unless otherwise authorized in writing by the Forest Supervisor.

Temporary use and occupancy of the premises and improvements may be sublet by the permittee to third parties only with prior written approval of the Forest Supervisor. However, the permittee shall continue to be responsible for compliance with all conditions of this permit by persons to whom such premises may be sublet.

Disorderly or otherwise objectionable conduct by the permittee, or those occupying the premises with his permission, shall be cause for revocation of the permit.

This permit authorizes the use of the site for a recreation residence. Yearlong use or use as an established domicile is prohibited. "Yearlong use" means the physical presence on and occupation of the site by the permittee, or some other person with his permission, expressed or implied, to such an extent that special social services such as bussing or other transportation, snow removal, etc., must of necessity be provided by the county in which the permit area is located, and so that expenditures of county funds for such special social service is made necessary to a substantial degree.

2. Responsibilities Related to Use and Occupancy

The permittee shall take all reasonable precautions to prevent and suppress forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without a written permit from the Forest Officer in charge or his authorized agent.

The permittee shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with the permit, and shall pay the United States for any damage resulting from negligence or from the violation of the terms of the permit or of any law or regulation applicable to the National Forests by permittee, or by any agents or employees of the permittee acting within the scope of their agency or employment.

The permittee shall fully repair all damage, other than ordinary wear and tear, to National Forest roads and trails caused by the permittee in the exercise of the privilege granted by the permit.

The permittee shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of National Forest lands under this permit, provided this shall not be construed to indemnify the United States against its own negligence.

B. Actual Practices of Permittees Relating to Use and Occupancy of Vacation Homes

To determine the actual practices of permittees in the use and occupancy of their vacation homes, respondents to the mail questionnaire were first asked to describe the location of their permit site with respect to distance from their permanent home and with respect to the surroundings. These questions were posed since both factors could influence the extent of use.

1. Distance of Vacation Home from Permanent Home

The distance of the vacation home from the permanent home of respondents in the mail survey varied by section of the country: in the West 62 percent of the respondents lived within 100 miles of their vacation home; in the Northeast Census Region only 43 percent lived within 100 miles; in the North Central Region 25 percent; and in the South 71 percent. The North Central states had the largest share of permittees (24 percent) living 500 miles or more from their vacation home site; 200 miles was the maximum distance reported in the East. A summary of the findings is shown in Table XIII-11.

2. Surroundings of Vacation Home Area

The type of area in which the permit site was located was described by respondents as: wooded, 81 percent; lake, 41 percent; river, 21 percent; ski area, 13 percent; have easy access, 41 percent.

Table XIII-11. Distance of vacation home from permanent residence.

Distance to Vacation Home	Total Sample	Forest Location by Census Region			
		West	North- east	North Central	South
25 miles or less	14%	13%	18%	12%	33%
26 to 50 miles	15	18	0	5	18
51 to 100 miles	26	31	25	8	20
101 to 200 miles	20	19	53	21	12
201 to 499 miles	13	11	0	29	2
500 miles or more	10	6	0	24	10
No answer	2	2	4	1	5
Source: Mail survey among permittees, May 1969; DMJM Economics.					

3. Seasonal Use

Respondents were asked to check the months in which their vacation home had been used during 1968. July and August were the peak months, when 91 percent reported some usage. During the winter months the occupancy fell to 20 percent as indicated in Table XIII-12.

On the average, permittees indicated usage of their vacation home during 6 of the 12 months of 1968. Seasonal patterns of usage, however, varied by Census Region. In the West 80 to 90 percent of the respondents used their vacation homes every month from June through September; then the usage dropped to approximately a 25 percent level during December through March. In the West Census Region differences in seasonal patterns were noted for Pacific Coast States versus Mountain States. In the Coastal States winter usage remained at 30 percent or more; in the Mountain States winter usage dropped to 5 and 10 percent levels.

In the Northeast Region the level of usage remained at 70 to 80 percent not only for the summer months, but also through the fall and December, dropping to a 25 percent level in January, February, and March. In the North Central Census Region, usage peaked at the 90 to 95 percent level during July and August, dropped to 40 to 60 percent during late spring (May and June) and early fall (September and October); and then fell below 10 percent during the winter months (December through March). In the South, usage from April through October varied from 60 to 83 percent, but held constant at about 35 percent during the remaining months.

Table XIII-12. Use of vacation home by month during 1968.

Vacation Home Used During:	United States	Location of Forest by Census Region			
		West	North- east	North Central	South
January	23%	25%	21%	9%	38%
February	22	24	25	9	35
March	24	25	25	11	40
April	36	36	43	24	60
May	61	60	61	57	78
June	86	89	82	78	83
July	91	92	86	82	83
August	91	93	75	95	75
September	78	82	71	64	68
October	58	60	75	45	63
November	38	36	75	38	38
December	28	28	86	9	38
No Month Checked	1	1	0	0	5
Source: Mail survey among permittees, May 1969; DMJM Economics.					

4. Rental Use and Occupancy

Of the 610 respondents in the mail survey, 20 (or 3 percent) said they rented their vacation home during 1968, each for an average of 126 person-days (e.g., to 4 people for a 31-day period). Total rental use for the entire sample, then, was 2,524 person-days.

5. Personal Use and Occupancy

This is the one area of the questionnaire which appears to have yielded inflated and unrealistic answers. It is evident from review of Commission and Congressional hearings testimony as well as from the questionnaire that permittees were anxious to show heavy usage of vacation homes as a justification for retaining the sites and dispelling any need for the Government to take over the locations and convert the areas to public recreation facilities.

Ninety-eight percent of the respondents (599 in total) said they made some personal or family use of their vacation home site during 1968.

They reported an average usage during 1968 of 306 person-days per household. It is probably true that some of them entertain families, friends, even a social group occasionally, but it is hard to conceive of families of 2 persons averaging 8 or 10 persons per day at their vacation home for as many as 40, 60, or even 90 days a year. Yet, such responses were received. Also when it is considered that most of the usage occurs during 3 or 4 summer months, and that 75 percent of these vacation residences are less than 1,000 square feet in size, it is difficult to believe that 16 percent of the permittees are extending the use of their facilities to 500 to 1,000 person-days of occupancy per year. This would mean that if 1,000 person-days of occupancy were accomplished during the peak 6 months of use, the average usage of the vacation home would be about 6 persons every day during the 6-month period.

The total extent of personal use of vacation homes for family and friends was reported as:

Over 900 person-days of use	6.4 percent
800 to 899 person-days of use	1.5 percent
700 to 799 person-days of use	2.5 percent
600 to 699 person-days of use	2.3 percent
500 to 599 person-days of use	<u>3.1 percent</u>
Subtotal of 500 or more person-days	15.8 percent
400 to 499 person-days of use	8.5 percent
300 to 399 person-days of use	13.9 percent
200 to 299 person-days of use	19.2 percent
100 to 199 person-days of use	25.7 percent
1 to 99 person-days of use	15.1 percent
No use reported	<u>1.8 percent</u>
	100.0 percent

The average person-days of personal use during 1968 was:

Per permittee making some use of the site	306 person-days
Per all permittees	300 person-days

6. Total Use and Occupancy.

By combining the rental use and personal use of the vacation home for family and friends, an average use of 304 person-days per year was reported by respondents to the questionnaire as shown below:

Personal use of family and friends	183,051 person-days
Rental of vacation home	<u>2,524</u> person-days
Total Use	185,575 person-days
Average, per permittee	304 person-days

By comparison, the Forest Service estimated 7,703,000 person-days of use in 1967, with each person-day equivalent to one person for 12 hours of occupancy. This estimate averages about 402 twelve-hour person-days per permittee or 201 equivalent 24-hour person-days per permittee. In the mail questionnaire, it was not determined what share of the person-days were 12 hours or less and what share were 24 hours. This would have been too complex for a self-administered questionnaire. If the average of 304 days of use determined from the mail survey were considered as possibly being comprised of 100 twenty-four-hour person-days and 200 twelve-hour person-days, then the mail questionnaire would yield some comparability to the Forest Service estimate. Otherwise, responses to the mail questionnaire would appear to overestimate 24-hour person-days by 50 percent.

Respondents to the mail questionnaire indicated a range in average annual usage from 275 person-days in the North Central Census Region to 311 person-days in the West. This is shown in Table XIII-13.

Table XIII-13. Usage of vacation homes by Census Region, 1968.

Region	Number of Permittees	Number of Person-Days Use of Vacation Home During 1968			
		Personal Use	Rental Use	Total Use	Average Per Permittee
United States	610	183,051	2,524	185,575	304
West	437	134,195	1,864	136,059	311
Northeast	28	8,516	0	8,516	304
North Central	102	27,364	642	28,006	275
South	40	11,836	18	11,854	296
Source: Mail survey among permittees, May 1969; DMJM Economics.					

In the West Census Region, average annual usage reported ranged from 236 person-days in Arizona to 367 person-days in Nevada. Findings for all Western States are shown in Table XIII-14.

Table XIII-14. Usage of vacation homes by state in the West Census Region, 1968.

State	Number of Permittees	Number of person-days use of vacation home during 1968			
		Personal Use	Rental Use	Total Use	Average Per Permittee
California	166	58,484	1,774	60,258	363
Oregon	36	9,785	0	9,785	272
Washington	40	10,121	0	10,121	253
Arizona	46	10,884	0	10,884	236
Colorado	53	17,029	300	17,329	327
Idaho	52	15,477	28	15,505	298
Montana	43	12,477	1,071	13,545	315
Nevada	44	15,942	200	16,142	367
New Mexico	47	11,966	0	11,966	254
Utah	41	12,945	0	12,945	316
Wyoming	56	17,350	18	17,368	310
Source: Mail survey among permittees, May 1969; DMJM Economics.					

7. Extent of Use and Occupancy Desired

Permittees, from time to time, have requested permission or have taken the initiative to use their vacation residence for a permanent home. It is recognized by the Forest Service that this practice does exist in small measure and it has been tolerated although it is in violation of the intent of use. Additionally, in most instances the practice is in violation of the stated conditions of the permit.

The desire for permanent occupancy, and particularly for use of the residence as a retirement home was further indicated in hearings

conducted by the House of Representatives' Committee on Agriculture. In fact, the essence of many of the complaints concerning insecurity of tenure, forced terminations, and increasing permit fees was that such actions interfered with the planned use of the residence as a retirement home by the permittee(s).

As a part of the mail survey, the extent of permittee interest in use and occupancy of the vacation residence as a permanent home or as a retirement residence in the future was measured. Interest in this use could represent areas of potential problems and pressures.

a. Present Use as a Permanent Residence. About 5 percent of all respondents in the mail survey indicated they are now occupying their vacation home as a permanent residence. All of the instances were occurring in the West and North Central Census Regions. In California, 12 percent of the respondents were using their vacation home as a permanent residence; in Nevada 7 percent; in all other Western States less than 5 percent; and in the North Central Region 5 percent. If the 5-percent ratio exists all over, then approximately 1,000 of the 19,000 permittees are making permanent use of the permit site, and the restricted use for which the permit is issued is not being enforced.

b. Interest in Year-Round Occupancy. A total of 38 percent of the permittees responding to the mail survey indicated a desire for year-round occupancy of their vacation home. Approximately 4 percent have already requested permission; an additional 34 percent are interested. Response ranged from 43 percent in the South, 40 percent in the West, 31 percent in the North Central Region, and 29 percent in the Northeast. Arizona and California permittees had the highest response in the Western States, with 48 percent and 45 percent respectively desiring year-round occupancy. But in all of the other Western States, interest was at or above the 25-percent level. These include the permittees who have already requested permission as well as the interested ones.

Among the 38 percent who expressed an interest in year-round occupancy, 28 mentioned that their interest was especially directed toward use of the premises as a retirement residence; 9 percent for a permanent residence even before retirement.

At present, 21 percent of permittees say they are retired; 32 percent are 60 and older. Consequently, future use of the vacation home as a retirement residence must be penetrating the younger age levels (at least those in their 50's), so among those who are approaching retirement, this potential use of vacation homes would appear to be quite prevalent.

8. Potential Problem Areas Based on Conditions of Occupancy

Most of the potential problems associated with the conditions of use and occupancy are oriented toward the Government rather than the permittee. They can be summarized as follows:

a. From the Standpoint of the Government. Present unauthorized year-round occupancy is being exercised by some permittees and not disallowed by the Forest Service. If this is not corrected, violation of policy may set a precedent for further penetration of this condition.

If the policy is relaxed and year-round occupancy becomes an allowed or usurped privilege, then the trend will be toward permanent occupancy especially for retirement living. Such occupancy can create additional administrative work, Government services and patrolling, and possibly even pressures from local governments for changes in "in-lieu" payments to accommodate the added service requirements of local jurisdictions.

The more permanent the residency, the harder it will be to terminate the permits for higher-priority, public recreation uses. The Government could be pressured to dispose of the sites once they are converted to private residential, year-round occupancy. Permitting violations of occupancy represents a failure on the part of the Government agency to manage this use. If use and occupancy is permitted to expand, a more comprehensive plan for water quality and sewage treatment may be required.

b. From the Standpoint of the Permittee. Use and occupancy of vacation homes is undoubtedly far greater now than ever anticipated, under the original objective of providing such use. Only the permittee will gain if he continues to extend his usage. However, the more use privileges he gains, the less he will understand the rationale of leasing, and the harder it will be for him if and when the term of his occupancy ends.

Extended use will also encourage the permittee to make alterations and additions and thus increase the cost of his improvement. This will only add to the amount of amortization required to depreciate his asset within the term of the permit. Extended use of the site while the permit is still in force can give the permittee hopes of extension of the permit or the possibility of equity interest.

c. From the Standpoint of the General Public. If permanent occupancy is allowed, especially as a retirement residence, availability of sites by purchase of existing improvements will be further reduced. Speculative resales will be further encouraged. The obstacles and emotional pressures of recovering sites from retirees will virtually eliminate any opportunity of recapturing the vacation home site for higher-priority, public recreation use.

IX. PERMIT CONDITIONS AND ACTUAL PRACTICES REGARDING TERMINATIONS OF VACATION HOME PERMITS

Land leases terminate under two conditions: at the expiration of the term specified in the contract; or "early termination" prior to the expiration date because of action taken by either lessor or lessee. However, the Government assumes "termination" of permits for vacation home sites to be restricted in meaning to forced vacancy of the site by action of the permittor, the Forest Service. The National Park Service has not terminated any of its permits for this use. In this section, the conditions regarding terminations of vacation home permits are outlined and contrasted with the actual practices.

A. Permit Conditions and Policy Provisions Regarding Termination of Vacation Home Site Permits by Federal Agencies

1. Terminable Permits (Forest Service)

A clause in the permit states that it may be terminated for either of the following reasons: (a) breach of any conditions in the permit, or (b) at the discretion of the regional forester or the Chief of the Forest Service.

No period is specified as to the length of time between notification of termination and vacancy of the site. Usually in rentals the terminal notice period coincides with the rent payment period which, for terminable permits, is one year. However, in letters to holders of terminable permits, the Forest Service states that should it be necessary to terminate the permit for reasons other than breach of any of its terms, it is Forest Service policy to give, insofar as it is possible, at least 10 years advance notice of this proposed action.

No period is specified in the terminable permit for the minimum occupancy of the site. Consequently, termination does not obligate the Government to compensate the permittee for the improvement, and permittees are notified that there will be no compensation for improvements at the time of termination.

Upon termination of the permit, the permittee is responsible for removal of the structure(s) and restoration of the site. If the permittee does not assume the physical responsibility for removal and restoration, he is liable for the cost of such work carried out by the Government.

It will be recalled that 64 percent of the permittees responding to the mail survey indicated that they were holding terminable permits.

2. Term Permits (Forest Service)

Most term permits are issued for a 20-year term. A clause in the permit states it may be terminated upon breach of any of the conditions in the permit. Such termination for breach of conditions does not carry any stipulation for length of notice, compensation or other considerations.

However, if during the term of the permit or any extension thereof, the Secretary of Agriculture or any official of the Forest Service acting under his authority shall determine that the public interest requires termination, the permit shall be terminated upon 30 days written notice to the permittee. The United States shall then have the right to purchase the permittee's improvements, to remove them, or require the permittee to remove them, and the United States shall be obligated to pay an equitable consideration for the improvements or for removal of the improvements and damages to the improvements resulting from the removal.

The amount of consideration for the improvement, if there is such early termination, shall be fixed by mutual agreement between the United States and the permittee. Within the permit itself, the permittee and the United States agree that the amount shall in no event exceed a stated number of dollars. The amount determined as payment obligation is defined as replacement cost of the recreation residence less evidenced depreciation, rather than fair market value. If mutual agreement is not reached between the Forest Service and the permittee on this amount, the permittee may appeal the determination. However, upon payment of 75 percent of the amount fixed by the Forest Service, the United States may remove or require the removal of the improvement prior to final decision on appeal.

By policy, the Government assumes the obligation to give a 10-year notice of intent to terminate a term permit even though the expiration date is specified in the permit. In practice, the Government voluntarily extends their obligation for giving notice of termination to as long as 20 years by notifying permittees who accept a 20-year term permit that they will automatically be granted a 10-year extension at the end of the 20 years unless the Forest Service advises the permittee before the end of the tenth year from the effective date of the permit that the permit will not be extended.

3. Term Permits (National Park Service)

The 25-year permits issued for vacation home sites in two National Recreation Areas administered by the National Park Service may be revoked upon breach of any condition within the permit or at the

discretion of the Director of National Park Service. No provision is made for any payment or severance damage to either party if the permit is revoked before the term expires, or if the permit is not extended at the end of the stated term.

If the permit expires or is revoked for reasons stated above, the permittee must remove all structures and improvements within 90 days and shall restore the site to its former condition. If the permittee fails to remove improvements and restore the site, they become the property of the United States. However, this does not relieve the permittee of liability for the cost of removal and restoration.

There are no provisions for an extension of the permit privilege at the end of the present 25-year term.

B. Termination Conditions for Vacation Home Site Leases by State and Private Ownerships

For purposes of comparison and reference, termination conditions for vacation home sites leased by states and by private ownerships are summarized below.

1. Termination of State Leases for Vacation Homes

In Pennsylvania, vacation home site leases are not automatically renewed at the expiration of the 10-year term specified in the lease. If a renewal is not offered, the lessee is permitted to remove his building within 90 days provided his rental is not in arrears. If it is not removed, it becomes the property of the State.

In Wisconsin, a 10-year termination notice is considered adequate. If any extensions were made after the expiration of 10 years termination notice (because the lands were not needed by the State) they were for 2-year periods. Lessees may remove any buildings erected by them prior to the expiration of the lease term, provided it can be done without injury to the land or surrounding premises. Any buildings remaining at the expiration of the lease become the property of the State Department of Natural Resources.

2. Termination of Private Ownership Leases

Weyerhaeuser Properties have several clauses in their vacation home site leases relating to termination conditions: (a) surrender of the property at the end of the term, or an early termination; (b) method of settlement, if the property is taken by eminent domain; and

(c) lessor's costs in recovering possession of the premises to be paid by the lessee. At the end of the term, or on early termination, the lessee will deliver the premises together with all improvements, in good repair, order, and condition, and the improvements shall become the property of the lessor. However, if the lessee is not in default on the lease, lessee may remove all buildings within 60 days and, in addition, must remove all foundations, debris, etc., and surrender possession of the premises in a clean and orderly condition. In the event of eminent domain, any mortgagee will be paid his remaining interest; the balance of compensations and damages on account of buildings and improvements constructed by the lessee will be paid to the lessee; and the lessor will retain the compensation and damages attributable to condemnation of the land. If the lease is terminated because the lessee fails to start construction within 2 years after receiving the lease, the lessor returns the initial payment for the leasehold, but retains all rents paid during that 2-year period; the lessee is released from further obligation. Termination of the lease by the lessee through transfer of ownership of the improvement requires written covenants binding the new owner and a service fee of \$25 for the transfer of the lease.

Northern Pacific Railway Company leases specify that the lessor must give not less than 90 days written notice to terminate. Any advanced rental will be refunded to the lessee. If the lessee fails to remove any material, buildings, or property owned by him within the time prescribed in the notice of termination, the lessor may appropriate such property for its own use, without compensation, or remove the same at the expense of the lessee. The lessee may terminate upon 30 days written notice. Lessee may also terminate by assigning his interest, but only with the written consent of the lessor. Upon termination, the lessee must surrender the property to the lessor in good condition. If the lessor sells the property during the term of the lease, the sale will be subject to the lease.

Pacific Gas and Electric Company states in its lease for vacation home sites that the lessee may remove buildings or other structures he has constructed on the premises only if done before the termination of the lease; otherwise at the expiration of the lease title to such improvements will vest in the lessor. Termination of the lease by assignment of the improvement requires prior written consent of the lessor. The lease may be terminated in whole or any portion thereof whenever in the sole judgment of the lessor the premises are needed or useful in connection with its public utility business. This may be done by giving the lessee a 30-day written notice; or, if lessee defaults on performance of conditions in the lease, lessor may terminate on 30 days written notice.

Southern Pacific Company in its long-term leases for vacation residence sites provides for the lessee to remove the structures at the end of the term provided no default exists. However, title to any structures or improvements not removed within 6 months after termination of the lease will be vested in the lessor. Similar to the other leases reviewed above, the lessee may terminate upon assignment of the improvement to a new owner only with the written consent of the lessor. No provision is made for early termination of the lease for any other purpose.

From the above examples of termination conditions for vacation home sites leased by private landowners, it may be noted that there are no provisions for revising or extending the original term of the lease when the ownership of the improvement changes hands. The lease term is tied to the site and not readjusted at interim terminations. Thus the owners keep control of the land and may even gain control of the improvement. Compensation for the improvements is limited to termination by eminent domain.

C. Actual Practices Regarding Terminations on Federal Lands

1. Number of Vacation Home Sites Terminated

The number of permits terminated by the Forest Service for the purpose of recovering vacation home sites totaled 433 from 1916 through June 1967. From 1952 through June 1967 a total of 233 permits were terminated. The number terminated annually since 1952 has ranged from 0 to as many as 88. A summary for the years available follows:

1916 through 1951, combined	200
1952	0
1953	1
1954	1
1955	10
1956	2
1957	4
1958	3
1959	17
1960	13
1961	32
1962	23
1963	88
1964	12
1965	10
1966 and first half 1967	<u>77</u>

2. Terminations Pending

On the basis of the number of termination notices sent to permittees by the Forest Service, 700 more terminations are expected to occur within the 10 years following 1967.

Not all of the permittees notified will necessarily have their permits terminated on schedule. If planned reuse of sites is delayed for lack of Federal funds to convert the areas into public recreation facilities, then terminations will be rescinded or postponed.

In the mail survey, 5 percent of permittees responding mentioned having received termination notices, but 1.6 percent (or about one-third of those receiving termination notices) indicated that their termination had been delayed beyond the original date or had been rescinded. If the remaining 3.6 percent is applied to the total number of permits, this would project to 650 to 700 permits that might be under termination notice at this time. This would substantiate the figure of 700 given by the Forest Service as indicated above.

Termination notices had been received by some permittees in all Census Regions except the South, and in all states in the West. Since most of the permits (92 percent) are in the West Census Region, this area also had the most termination notices. Three-fourths of those receiving notices mentioned the reason for terminating the permit for their sites was to provide for public recreation facilities, including campgrounds and such enterprises as Disney's Mineral King establishment; a few mentioned the taking of their sites for public roads and dams, and a few mentioned termination because of deterioration of the improvement.

According to the permittees whose terminations were still in effect, about 50 percent expected the termination to occur during the first half of the 1970's and the remainder during the last half.

3. Termination Policies and Practices

a. Determination of Need to Recapture Sites. The decision to terminate vacation home sites is based on long-range projections of the need for sites for higher-priority recreation use in order to meet public demands and to provide the greatest benefit to the greatest number. The Forest Service responds to these demands by a policy of formulating and reviewing the long-range plans for the multiple use of its lands. It makes National Forest Recreation Surveys and National Forest Recreation Management Plans which interpret the needs for facilities and determines which sites are required to meet those needs.

Needs are usually projected to the year 2000. When it is determined that some recreation-residence sites should be recaptured, a limited tenure permit is used for the vacation home permit. Since it is the policy of the Forest Service to keep the long-range plan updated, terminations are planned at least 10 years in advance.

b. Plans for Termination. As a part of the justification report for the reuse of any National Forest Area for a higher-priority recreation use, an action plan is filed stating how the terminations will be implemented (timing, permittee contacts, lieu lot plans, etc.) When lieu lots are available, they are offered to terminating permittees as an alternate location to which to move their improvement. The present policy dictates that summer homes may be permitted only where the lands are clearly not suitable or not needed for public use; consequently lieu lots are not usually as attractive as the original sites.

Examples of the steps taken in termination planning and implementation are presented in the case studies of termination at Norway Beach and Chippewa National Forest. (See Appendix C.)

c. Pressures on Termination Policies. Through individual efforts of permittees, through the organized effort of their homeowners' groups (e.g., those in the National Forest Recreation Association) and through their Congressional Representatives, permittees have exerted considerable pressure on the Forest Service to effect changes in policies related to tenure and termination of vacation home permits. Hearings were conducted in various locations throughout the West and in Washington, D. C. by the Subcommittee on Forests, Committee on Agriculture, House of Representatives of the 88th and 90th Congress, with regard to management policies and problems of the National Forests.

Permittees requested legislation that would assure the permanency of private recreation residences as an approved use of National Forests. They also requested legislation to compensate them for the replacement value of their improvement in the event of termination, regardless of length of occupancy or term of permit. Another request was for automatic renewal of all permits; if automatic renewal were continuous this would be equivalent to permits in perpetuity. Permittees will undoubtedly continue their opposition to terminations because it would establish the precedent of recovery of sites by Federal ownership and effects the priority ranking of recreation uses of the National Forests by relegating private recreational residences to the lowest priority.

D. Problem Areas Related to Terminations

1. Terminations at Expiration of Term Specified in Permit

There is no reason to have problems arising from termination of permits at the expiration of the term specified in the permit. The two parties to the agreement have accepted the term specified, with the permittee understanding that he will remove the improvement and restore the site and the permittor understanding that he will recover the site for reuse.

However, problem areas or potential problem areas primarily from the standpoint of the Government do exist. About 64 percent of all vacation home permits do not specify a total term or even a minimum term, thus the practice of recovery of the site at normal expiration of the permit cannot be exercised in accordance with good leasing principles.

Term permits (20-year) have not yet expired, so there is no precedent for continuous recovery of vacation home sites. In fact, the Government has taken steps to delay such action by indicating a willingness to extend term permits an additional 10 years. This means that sites for which permits were first issued in the 1910-1920 decade may continue under permit until almost the year 2000, tending to establish a precedent of nonrecovery. Permittees will use such a precedent in their continuing pressures for permits in perpetuity.

Until a procedure is implemented for recovery of sites at normal expiration of permits, without compensation for the improvement, the Government will receive continued pressure for compensation.

2. Early Terminations of Vacation Home Permits

The potential problem areas with early terminations of vacation home permits may be identified as follows:

a. From the Standpoint of the Government. The promise of 10 years notice of termination is an unnecessarily assumed obligation. No other lessor (state or private) promises such a long notice of intent to terminate. If early termination occurs, the Government is promising to compensate the permittee for the improvement on the basis of replacement value rather than the undepreciated value of the original cost. This obligates the Government to absorb the appreciated value of the improvement. If the situation should reverse, the Government might find itself on a double standard and be obligated for more than the replacement value of the improvement.

Until all permits are on a term basis, there will be pressure from permittees to consider any termination an early termination. The Government will receive pressures and complaints from permittees when the permittees are not in agreement with the planned reuse. (Complaints about reuse concern lack of control for orderly maintenance of the premises; inadequate fees for new use; lack of demand for new use). This problem would be eliminated if sites were automatically terminated at expiration of specified term without announcement of reuse plans and timing.

The administrative procedure and effort of early terminations may add to the administrative cost. Litigation time and expense may also be involved.

b. From the Standpoint of the Permittee. A long-range plan of ownership of a vacation home is not realized. If early termination occurs because of lack of adequate planning on the part of the Government, there is no penalty fee to the permittee provided by the Government for the inconvenience or lack of fulfillment of the contract.

c. From the Standpoint of the General Public. The financial burden of compensation for the vacation home improvement on a terminated site is borne by the general public through expenditure of tax dollars.

E. Termination Case Histories

Two case histories have been investigated that involve the termination of vacation home permit sites for higher-priority public recreation use. These are presented below. A third case history involving termination of vacation home permits by a land-exchange arrangement will be presented later in this study.

1. Case History: Lake Chelan, Wenatchee National Forest, State of Washington

a. Background. Lake Chelan's shoreline is rugged and developable sites are infrequent and generally small. Much of the more suitable lake is in private ownership, having been acquired by homestead or mineral patents. Choice sites occupied by ten isolated recreation residences on the shore of Lake Chelan were determined by the Forest Service to be needed for recreation developments to serve the general public. A recommendation was made in 1961 to terminate the permits. Notice of Termination, including personal contact with each permittee, had been completed by November 1962.

b. Planned Termination. Originally, terminations were scheduled as follows: one in 1963, one at the end of 1966, three at the end of 1967, two at the end of 1968, one at the end of 1969, and one at the end of 1975.

Since each of the permits were for isolated sites, it was possible, in determining the termination date, to give individual consideration to permittees, the condition of their improvement, and the schedule for redevelopment of the site.

c. Duration of Use. The ten sites would have been under permit for an average of 40 years at the time of the scheduled termination, and tenure on individual sites would be within the following range: one site, 54 years; four sites, 40 to 49 years; three sites, 30 to 39 years; and two sites, 24 to 29 years. The site under permit for 24 years was the last isolated cabin site permitted on Lake Chelan, acquired in 1937.

d. Occupancy of Present Permittees. Only two of the ten permittees were the original permittees for the sites they occupied. At the date of the scheduled terminations, one of the original permittees would have occupied his site 33 years and the other would have been in excess of 24 years. The last one had completed 24 years of occupancy, was 70 years old, and would continue occupancy for the balance of his life tenancy.

The balance of the permittees would have from 20 to 33 years of occupancy by the planned termination date, except for one permittee whose term of 4 years had been agreed to when he acquired a 25-year-old recreation residence (cabin) from a previous owner.

e. Extension of Termination Dates. Pressures from permittees and through their Congressional Representatives were exercised in an effort to cancel or delay terminations. Consequently, five of the ten terminations originally scheduled for 1967 through 1969 have been delayed until 1972; the termination planned for 1963 in accordance with the term of the permit was not accomplished until December 1964; no change was made in one original termination planned for 1975 nor for the one which has a life tenancy. Two of the ten terminations occurred as originally scheduled, one in December 1968 and the other in December 1966.

f. Extent of Advance Notice of Termination. The original schedule for terminations gave permittees from 5 to 8 years of advance notice, except on one resale where the purchasing permittee

had 4 years notice at the time of purchase. The extension of termination dates, however, increased the length of advance notice to 11 or more years for all but two permittees who were willing to terminate as originally scheduled.

g. Value. A value was not assigned to each recreation residence on the permit sites terminated, but all were cabin-type structures. Three of the cabins were constructed between 1915 and 1918; three between 1921 and 1929; and four between 1932 and 1937. Their average age at the time of the extended data of termination was 45 years. The cost of the cabins should have been fully amortized.

h. Rights Upon Termination. Since all of the terminations were for isolated sites, and no tracts of vacation home sites existed in the area, no in-lieu lots were offered. Permittees had the obligation to remove the improvement and restore the land, or assume the cost (\$100) if performed by the Forest Service. Permittees had no right to compensation as the permits were either terminable or the full term had expired.

i. Fees Charged. Annual permit fees on the terminated sites were \$15 between 1915 and 1955 and \$30 from 1956 through 1961. The rate would normally have increased to \$40 in 1962, but once termination was underway, there was no increase in fees.

j. Subsequent Use Made of Terminated Sites. Campground facilities, comprising 26 family units will be developed when all terminated sites are recovered. The two sites that have already been terminated each accommodate three family units of campground facilities. The new facilities will serve the general public, supplementing 28 family units in existing public campgrounds along the lakeshore.

2. Case History: Norway Beach, Chippewa National Forest, Minnesota

a. Background. The Norway Beach area in Chippewa National Forest includes 8,300 feet of National Forest shoreline and adjacent land located on the east side of Cass Lake. It is very scenic and highly suitable for any type of recreation development. The beach is excellent along the entire area for swimming, water sports, and launching of boats. Cass Lake is an excellent source of fishing. It is easily accessible by surfaced roads and highways.

Permits for a tract of 18 summer home lots were issued between 1909 and 1927. A resort was granted a permit in 1912. In 1922, a permit for a boys' camp adjacent to the tract was granted. In 1932, the University of Minnesota was granted a permit for an engineering summer camp. A public use area remained between the resort and summer home area.

All of the suitable lakeshore was taken up by these permits, with the summer home tract occupying 52 percent of the shoreline. In 1932 the engineering camp was moved in order to increase the public use area.

b. Notification of Termination. Conversion of summer home sites at Norway Beach to public use areas was considered during the 1930's because of rising demand for public outdoor recreation, and the decision was made in 1938 to terminate the permits. Permittees were given 5 to 20 years notice, with the termination period being based on the past tenure of each summer home. This would have resulted in total tenure for each permittee of 30 to 35 years.

Two years later, in 1940, the termination notices were cancelled and in 1943 term permits were issued for all vacation home sites, except two that would expire in 1963, for a term of 20 years. Ten years prior to the expiration of permits in 1962, new 20-year permits were issued, to expire in 1973 and 1974, except two were continued as terminable permits. In 1963 permittees were informed that termination would occur in 1973 and 1974 unless a review indicated a need for other action in individual cases.

c. Duration of Use. By 1973-74 when terminations are now scheduled to be implemented, the vacation home sites will have been occupied from 45 to 65 years. At the time of notification of termination, two of the vacation home permittees were original holders of their sites. By 1973 present permittees will have occupied the sites for an average of 26 years, with a range in occupancy from 10 years to 49 years. All of the residences are original structures from the first occupancy of the sites, except that some have been improved.

d. Value. The maximum value of each recreation residence being terminated was stated in the term permits issued 10 to 20 years before termination as \$900 to \$1,800, averaging \$1,200. These values should have been considered amortized during the remaining tenure, so that the structures could be considered to have only salvage value at the time of termination.

The value of the land occupied by the recreation residences, based on acquisition costs prevailing for similar land, ranged from \$100,000 to \$130,000 ten years prior to termination. However, land of the same quality was not available for acquisition, and if lower quality lands were acquired, at least 15 years would be required for development of tree cover and reclamation work.

e. Fee Charged. Vacation home permittees paid an average permit fee of \$20 per year for the use of each site over the 40-plus years of occupancy.

f. Rights on Termination. The termination plan included offering permittees new permits on lots of their choice at other established summer home tracts or at sites where it would be possible to establish a new tract. The selected site would not be on land suitable or needed for general public use. Acceptance of either of these opportunities for the continuation of summer home privileges would be dependent upon the permittees. The present structures could be moved to the selected sites if the permittees so desired.

g. Subsequent Use Made of Land. The 3,300 linear feet of lake frontage and 17 contiguous acres now occupied by summer homes at Norway Beach will be converted to camping and picnic use. This acreage which supplied a recreation opportunity for 18 families at one time had an actual use of 6,600 man-days in 1963 and a potential use of 12,000 man-days use per year. The same acreage will be developed to support a minimum of 70 family units for camping and picnicking and will have an annual capacity of 30,000 man-days of recreation per year.

In addition, 26 acres adjacent to Norway Beach which are not now useable for water-oriented recreation because of the encumbrance of summer homes will become useful. This area will accommodate an additional 78 camping and picnicking family units, adding an annual capacity of 33,000 man-days of recreation per year.

The terminations will make possible the replacement of 18 private family units with 148 family units for general public use.

X. TERMINATION OF VACATION HOME SITES THROUGH
DISPOSITION OF LAND BY LAND EXCHANGE PROGRAM

Within the boundaries of almost every National Forest there are land parcels under private ownership intermingled with the major holdings by the Federal Government. It generally improves the convenience and efficiency of managing and providing access to the Federal lands if some of the intermingled private lands can be acquired. Acquisition may be by purchase or exchange. To facilitate the acquisitions, Forest officials usually prepare a listing of the parcels preferred for acquisition in order of their preference.

A. Exchange of Land

Land Exchanges are authorized by the "General Exchange Act", the Act of March 20, 1922, as amended; 16 U.S.C. 485, 486; 5 U.S.C. 511. The Act is entitled "An Act to Consolidate National Forest Lands". Under this Act an exchange must benefit the public interest. The acceptance of this Act has been used by the Forest Service to dispose of vacation home tracts.

B. Forest Service Policy - Summer Home Tract Exchanges

Land exchanges are voluntary transactions and cannot be consummated if either party is unwilling. Thus, if permittees prefer the status quo, the Forest Service would be unable to accomplish an exchange; if the Forest Service prefers their present holdings to the land offered, an exchange could not be accomplished.

There has been one instance of a land exchange involving a summer home tract and others are pending. The permittees organized themselves, assessed themselves for costs, hired an attorney, worked with the county planning commission for acceptable status of their tract, and distributed the land when acquired. Generally, if a summer home tract is available for exchange, it is in predominately a private land area, where private lands are now or will soon be subdivided. To avoid future complications permittees must be informed by both the Forest Service and the permittees association officers that exchange is voluntary and all (90 - 100 percent of permittees) must indicate a willingness to obtain title to the lot they occupy provided the cost is reasonable. The key to cost is the purchase price of the private land which the Forest Service will accept in exchange for the tract. Costs to the permittees in addition to land, are engineering, title, legal and incidentals, which average 15 - 25 percent of land cost.

C. Case History: Land Exchange of a Vacation Home Tract in the San Bernardino National Forest

A land exchange involving the Strawberry Flats Summer Home Tract in the San Bernardino National Forest was scheduled for consummation in July, 1969. The exchange involves the delivery of 134.375 acres of Government land, 52 acres of which contain 185 vacation home permit sites, for the receipt of 180 acres of private land, all within the San Bernardino National Forest in Southern California.

In addition to the recreation residences, the Government land designated for exchange contains two small resorts, one community church, a Masonic Hall, Fire Station, and a Little League baseball diamond. A state highway and county surfaced road goes through the parcel. The parcel is located two and one-half miles southwest of Lake Arrowhead in an area fast becoming subdivided and urbanized, retaining a vacation home orientation but losing its National Forest character.

The private land offered in exchange consists of two parcels: one of 99.42 acres surrounded by Forest Service ownership; lying approximately one and one-half miles northeast of Lake Arrowhead; and the second consisting of 80 acres located approximately five miles east of Lake Arrowhead.

1. Parcel Sizes

Individual lots are mostly in the range of 12,000 to 15,000 square feet. The balance of the area consists of common open space, easements, and roads.

2. Duration of Use as a Vacation Home Tract

The tract was created in 1923. A maximum of 46 years of use and occupancy was therefore possible for any site in the tract prior to the exchange effected in 1969. Duration of use for present tenants was not determined as a part of the exchange program as the tenants did not have to vacate the premises. They were to continue occupancy of their same sites after the exchange.

3. Fees Charged

Prior to 1955, permit fees for the parcels ranged from \$15 to \$20 per year; from 1955 to 1960 fees were \$40 per site per year; during 1968, fees were averaging \$70 per site. Had the sites been retained and the most recent fee increase phased over the next five years,

similar to other retained sites, permit fees based on appraised valuations in the area would have reached \$260 per year.

If permittees did not wish to acquire title to their individual parcels after the exchange was consummated, the land owners association would continue to lease the sites at a fee of 9 percent of the value of the lot (an average of \$180) plus the taxes on land and improvement. The current tax rate of \$9.00 per \$100 of assessed valuation would bring the total annual fee for leasing and property tax of a parcel to approximately \$225.

4. Value

The value of the improvement was not determined for the exchange agreement since each permittee would retain his own improvement after consummation of the exchange. There was, however, an assigned exchange cost which averaged \$2,000 per permittee. Individual assessments varied from \$1,500 to \$2,500 depending on size and location of the lot. The assessment included the pro-rated cost of community areas, such as roads and open space.

The value of the parcels offered in exchange for the Government land totaled \$360,000 for approximately 180 acres, or \$2,000 per acre. Since the acreage of Government land given in the exchange totaled approximately 134.4 acres, the Government received a value equivalent to \$2,530 per acre for the tract of vacation homes and open area.

5. Advanced Notification

The processing of a land exchange usually requires a total of four years; within this period, two years usually elapse from the date of locating suitable exchange lands. The interim period is devoted to surveying, legal aspects, and working out requirements and regulations with the county that will have jurisdiction over the private ownership after the exchange is completed. Permittees have this full period of notification since the first step must be agreement by permittees to proceed.

6. Permittees' Rights and Obligations after Exchange Completed

After the exchange is completed, permittees may acquire fee title to their individual lots, rights to use the common area, and membership in Strawberry Flat Property Owners Association.

If purchase is not desired, permittees may continue to lease from the corporation the lot on which their vacation home improvement is located, paying a lease fee equivalent to 9 percent. This comprises a rate of 8 percent interest, on the value of their parcel (which is equivalent to the financial service charge on the loan) plus an additional 1 percent of the value for engineering, collection, bookkeeping, etc. The permittee is also responsible for county taxes on his parcel.

7. Subsequent Use of the Land

After the exchange, the vacation home sites may be used only for single family residences but use of the residences is not restricted to vacation occupancy.

D. Problems of Exchange Related to Vacation Homes

1. From the Standpoint of the Government

The quality of the lands received in exchange, in terms of amenities such as lakes, rivers, wooded coverage, road access, utility access, etc., may not equal the quality or recreation potential of the disposed lands. Exchange for at least equal value does not necessarily mean equal opportunity for similar use.

Greater planning effort and greater costs may be involved in bringing the acquired land into service for comparable use, if suitable for such use at all.

2. From the Standpoint of the Permittee

The exchange program offers the advantage of fee simple ownership and its attendant opportunities for appreciation in value of both land and improvement. The permittee no longer has to assume his obligation of depreciating his asset because it is on leased land.

The permit fee is eliminated but local taxes are added. The permittee may sell, will, or otherwise dispose of his parcel and improvement in any way he desires. If the permittee does not buy his site, the fee for leasing increases substantially.

3. From the Standpoint of the General Public

The Forest Service indicated that choice parcels most valuable for public recreation use have been absorbed by vacation home permits. Exchanges will dispose of these potential sites for public recreation use.

The general public may lose esthetic qualities of an area by relaxed control over the occupants. Often these homes are in the vicinity of lakes highly valued by the general public for the entire controlled environment the area affords.

If sites equally as desirable for public recreation use are to be acquired in the future, a premium will be paid over the value received for disposed lands. This is substantiated by experiences of states and other Governmental jurisdictions.

State	Year	Acres	Value	Per Acre	Notes
Alaska	1954	1,000	\$1,000,000	\$1,000	
Alaska	1955	1,000	\$1,000,000	\$1,000	
Alaska	1956	1,000	\$1,000,000	\$1,000	
Alaska	1957	1,000	\$1,000,000	\$1,000	
Alaska	1958	1,000	\$1,000,000	\$1,000	
Alaska	1959	1,000	\$1,000,000	\$1,000	
Alaska	1960	1,000	\$1,000,000	\$1,000	
Alaska	1961	1,000	\$1,000,000	\$1,000	
Alaska	1962	1,000	\$1,000,000	\$1,000	
Alaska	1963	1,000	\$1,000,000	\$1,000	
Alaska	1964	1,000	\$1,000,000	\$1,000	
Alaska	1965	1,000	\$1,000,000	\$1,000	
Alaska	1966	1,000	\$1,000,000	\$1,000	
Alaska	1967	1,000	\$1,000,000	\$1,000	
Alaska	1968	1,000	\$1,000,000	\$1,000	
Alaska	1969	1,000	\$1,000,000	\$1,000	
Alaska	1970	1,000	\$1,000,000	\$1,000	
Alaska	1971	1,000	\$1,000,000	\$1,000	
Alaska	1972	1,000	\$1,000,000	\$1,000	
Alaska	1973	1,000	\$1,000,000	\$1,000	
Alaska	1974	1,000	\$1,000,000	\$1,000	
Alaska	1975	1,000	\$1,000,000	\$1,000	
Alaska	1976	1,000	\$1,000,000	\$1,000	
Alaska	1977	1,000	\$1,000,000	\$1,000	
Alaska	1978	1,000	\$1,000,000	\$1,000	
Alaska	1979	1,000	\$1,000,000	\$1,000	
Alaska	1980	1,000	\$1,000,000	\$1,000	
Alaska	1981	1,000	\$1,000,000	\$1,000	
Alaska	1982	1,000	\$1,000,000	\$1,000	
Alaska	1983	1,000	\$1,000,000	\$1,000	
Alaska	1984	1,000	\$1,000,000	\$1,000	
Alaska	1985	1,000	\$1,000,000	\$1,000	
Alaska	1986	1,000	\$1,000,000	\$1,000	
Alaska	1987	1,000	\$1,000,000	\$1,000	
Alaska	1988	1,000	\$1,000,000	\$1,000	
Alaska	1989	1,000	\$1,000,000	\$1,000	
Alaska	1990	1,000	\$1,000,000	\$1,000	
Alaska	1991	1,000	\$1,000,000	\$1,000	
Alaska	1992	1,000	\$1,000,000	\$1,000	
Alaska	1993	1,000	\$1,000,000	\$1,000	
Alaska	1994	1,000	\$1,000,000	\$1,000	
Alaska	1995	1,000	\$1,000,000	\$1,000	
Alaska	1996	1,000	\$1,000,000	\$1,000	
Alaska	1997	1,000	\$1,000,000	\$1,000	
Alaska	1998	1,000	\$1,000,000	\$1,000	
Alaska	1999	1,000	\$1,000,000	\$1,000	
Alaska	2000	1,000	\$1,000,000	\$1,000	
Alaska	2001	1,000	\$1,000,000	\$1,000	
Alaska	2002	1,000	\$1,000,000	\$1,000	
Alaska	2003	1,000	\$1,000,000	\$1,000	
Alaska	2004	1,000	\$1,000,000	\$1,000	
Alaska	2005	1,000	\$1,000,000	\$1,000	
Alaska	2006	1,000	\$1,000,000	\$1,000	
Alaska	2007	1,000	\$1,000,000	\$1,000	
Alaska	2008	1,000	\$1,000,000	\$1,000	
Alaska	2009	1,000	\$1,000,000	\$1,000	
Alaska	2010	1,000	\$1,000,000	\$1,000	
Alaska	2011	1,000	\$1,000,000	\$1,000	
Alaska	2012	1,000	\$1,000,000	\$1,000	
Alaska	2013	1,000	\$1,000,000	\$1,000	
Alaska	2014	1,000	\$1,000,000	\$1,000	
Alaska	2015	1,000	\$1,000,000	\$1,000	
Alaska	2016	1,000	\$1,000,000	\$1,000	
Alaska	2017	1,000	\$1,000,000	\$1,000	
Alaska	2018	1,000	\$1,000,000	\$1,000	
Alaska	2019	1,000	\$1,000,000	\$1,000	
Alaska	2020	1,000	\$1,000,000	\$1,000	
Alaska	2021	1,000	\$1,000,000	\$1,000	
Alaska	2022	1,000	\$1,000,000	\$1,000	
Alaska	2023	1,000	\$1,000,000	\$1,000	
Alaska	2024	1,000	\$1,000,000	\$1,000	
Alaska	2025	1,000	\$1,000,000	\$1,000	
Alaska	2026	1,000	\$1,000,000	\$1,000	
Alaska	2027	1,000	\$1,000,000	\$1,000	
Alaska	2028	1,000	\$1,000,000	\$1,000	
Alaska	2029	1,000	\$1,000,000	\$1,000	
Alaska	2030	1,000	\$1,000,000	\$1,000	

XI. DEMOGRAPHIC CHARACTERISTICS OF PERMITTEES

Family characteristics of permittees were determined in the mail survey. The respondents were asked to give a description, by various characteristics, for their immediate household, but many tended to overstate family size and family composition to include not only the immediate household but all married children and grandchildren. These replies were edited to describe only the immediate households.

A. Size of Household

The size of household for permittees was reasonably in proportion to that of all U.S. households, except that there were fewer three and four-person households. Household size was similar by census regions and by states in the west. These data are shown in Table XIII - 15.

Table XIII - 15. Size of households holding vacation home permits.

Total United States Households ^a	Number In House- hold	United States	Permittees			
			Location of Forest, by Census Region			
			West	North- east	North Central	South
--	One	4.1	4.1	3.6	3.9	5.0
33.4	Two	33.9	33.9	35.7	32.4	37.5
20.6	Three	10.7	9.6	12.9	7.1	12.7
19.2	Four	14.6	17.1	14.3	20.6	10.0
12.7	Five	11.6	11.7	17.9	9.8	12.5
7.0	Six	7.5	8.9	3.6	3.9	5.0
7.0	Seven or more	6.2	6.4	3.6	5.9	7.5

^a Bureau of Census Estimates for 1967

Source: Mail study among permittees, May 1969, by DMJM Economics.

B. Household Composition

About half of the permittees reported no children in their immediate household. Only 14 percent of permittees (versus 28 percent of U.S. households) had children under 6 years of age. About 27 percent of permittees had children in the 6 to 12 age group. About 37 percent of permittees had children in the 13 to 19 age group. Comparable data

on family composition of U.S. households by age of children are not available. Forty-eight percent of permittee households (versus 44 percent in the U.S.) were comprised of all adults.

C. Age of Head of Household

Permittee heads of household are older than those in the U.S. as a whole, as shown in Table XIII - 16. This is true by Census Region and by states in the west, except that the State of Washington has more representation among households with heads under 40 years.

Table XIII - 16. Age of permittee heads of household.

Total United States Households ^a	Age of Head	United States	Permittees			
			Location of Forest, by Census Region			
			West	North- east	North Central	South
16%	Under 30	1.1%	1.4%	0.0%	1.0%	0.0%
21%	30 to 39	9.5%	9.8%	7.1%	10.8%	5.0%
22%	40 to 49	25.4%	25.4%	42.9%	19.6%	30.0%
19%	50 to 59	29.8%	30.2%	17.9%	30.4%	30.0%
13%	60 to 69	23.0%	21.7%	32.1%	22.5%	30.0%
7%	70 & older	9.2%	9.2%	0.0%	13.7%	5.0%

^a Bureau of Census estimates for 1967, adjusted by DMJM for age.
Source: Mail survey among permittees, May 1969, by DMJM Economics.

D. Occupation of Head of Household

Over 50 percent of the permittees are in occupation categories of professional/technical and managers/officials/proprietors, compared to about 22 percent of the heads of all U.S. households (see Table XIII - 17). Twenty percent of permittees are retired heads of households, compared to an estimated 10 to 15 percent for the U.S. generally. These three categories include almost three-fourths of the permittees; the balance is scattered among lesser-income white-collar and a cross section of blue-collar workers. Representation of permittees by occupational groups is similarly heavily weighted toward professional, managerial, and retired categories in all of the Census Regions and in most of the states of the west. The east shows higher representation from the craftsmen category.

Table XIII - 17. Occupation of permittees.

Total Employed Heads ^a	Occupation of Head of Household	United States	Permittees			
			Location of Forest, by Census Region			
			West	North- east	North Central	South
10.1	Prof/Technical	27.9	27.0	25.0	30.4	35.0
12.4	Mgrs/Propriet.	23.8	24.3	10.7	21.6	35.0
6.2	Clerical	1.3	1.8	--	--	--
4.5	Sales	8.0	6.9	10.7	11.8	10.0
15.1	Craftsmen	6.6	6.6	21.4	3.9	2.5
15.5	Operatives	2.3	2.7	--	2.0	--
5.9	Service	1.6	2.3	--	--	--
5.3	Laborers/ Farm Lab	0.8	0.2	7.1	1.0	2.5
3.9	Farm Managers/ Owners	2.5	2.5	--	2.9	--
n.a.	Retired	20.5	21.5	14.3	20.6	12.5
2.5	Unemployed					
18.2	Armed Services					
	No Answer	4.8	4.1	10.7	5.9	2.5

n.a. = not applicable. For reference, about 15 percent of all individual adults are 65 and over.

^a Bureau of Census estimate for 1964.

Source: Mail survey among permittees, May 1969, by DMJM Economics.

E. Education of Head of Household

Sixty-one percent of the heads of permittee households attended college (versus 22 percent in the U.S. generally); 25 percent have advanced degrees requiring over 4 years of college; and about 33 percent attended high school or technical schools (versus 49 percent in the population generally). Additionally, heads of household with educational achievement of 8th grade or less, representing 29 percent of the population generally, have limited representation (4 percent) among permittees. (See Table XIII - 18.)

This further emphasizes the fact that professional and managerial-educated people represent the highest proportion of permittees. There is a slightly better representation among high school and technical school

categories in the East Census Region, but even in that region, 46 percent of permittees attended college. In the individual states of the west, the pattern of about 60 percent college-educated is not violated.

Table XIII - 18. Educational attainment of permittees.

United States Total 1966 ^a	Education of Head of Household	United States	Permittees			
			Location of Forest, by Census Region			
			West	North- east	North Central	South
29.1	8th grade or less	3.8	3.9	3.6	3.9	2.5
48.5	{ Grades 9, 10	3.6	3.4	3.6	2.9	5.0
	{ Grades 11, 12	21.5	22.7	32.1	15.7	15.0
	{ Tech. school	7.5	6.6	14.3	7.8	12.5
22.4	{ One or two years college	14.4	14.9	21.4	11.8	10.0
	{ Three or four years college	22.0	22.7	10.7	19.6	30.0
	{ Advanced Degree	24.8	23.1	14.3	35.3	25.0
^a Bureau of the Census. Source: Mail study among permittees, May 1969, by DMJM Economics.						

F. Household Income

About 59 percent of the permittees have household incomes of \$10,000 or more, compared to 30 percent of all households in the U.S. (See Table XIII - 19.) The incidence of incomes in the highest portion of that bracket, \$15,000 or more, is even more unbalanced: 30 percent of permittees versus almost 11 percent of all households.

There is a very small representation in the lower income brackets among permittees. Only 7 percent of permittee households have incomes of less than \$5,000 annually, versus 25 percent in the U.S.; and 15 percent of permittees are within the \$5,000 to \$8,000 range, compared to 25 percent of total population.

In every Census Region and in every Western State, from 50 to 65 percent of the permittees are in the \$10,000 and over income brackets.

Table XIII - 19. Income levels of permittees.

United States Households 1967 ^a	Household Income	United States	Permittees			
			Location of Forest, by Census Region			
			West	North- east	North Central	South
33.1	Under \$5,000	7.3	7.1	10.7	6.8	10.0
23.4	\$5,000 to \$7,999	14.6	12.8	21.4	14.7	22.5
13.6	\$8,000 to \$9,999	11.0	12.4	17.9	7.8	--
19.4	\$10,000 to \$14,999	28.5	29.1	35.7	25.5	27.5
8.3	\$15,000 to \$24,999	20.5	21.1	--	24.5	20.0
2.2	\$25,000 or more	9.8	9.6	10.7	7.8	17.5
--	No answer	8.2	8.0	3.6	12.7	2.5
^a Bureau of Census. Source: Mail survey of permittees, May 1969, by DMJM Economics.						

XII. DEMAND FOR AND SUPPLY OF VACATION HOME LAND

The purpose of this section is to determine whether the supply of public lands available or to be made available will be sufficient to satisfy the demand at the prices now charged. The starting point in this analysis is demand. However, a complete, in-depth analysis to determine the demand for vacation home land was beyond the scope of this study. Insight to this specialized area of housing activity will be gained from the Commission's current study of outdoor recreation.

Before delving into the aspects of demand, it is appropriate to review the growth of the vacation home market.

A. Growth of the Vacation or Seasonal Home^{1/} Market

While the vacation home and vacation home land market is undoubtedly large, there is limited information available as to its size and rate of growth. There are, for example, no precise data on the total number of vacation homes constructed in the U.S. each year and virtually no data on the number of vacation home parcels without structures sold on an annual basis. Further, the major activity in this market has occurred in the past five years. However, an indication of the number of vacation or seasonal homes has been included in the decennial U.S. Census of Housing,^{2/} and although the categories changed from the 1950 to the 1960 census, approximations can be made as to size and growth trends. Total dwellings in these categories increased from 1,177,956 units in 1950 to 2,024,381 units in 1960, a 71.8 percent increase in 10 years.

Between 1950 and 1960, the number of vacation or seasonal dwelling units increased at a faster rate than occupied regular dwellings. In 1950, the ratio of seasonal to occupied non-seasonal dwellings was one seasonal for each 36 occupied units; in 1960 the ratio was one seasonal for each 26 occupied units. The increase in the number of seasonal dwellings between 1950 and 1960 averaged 84,600 annually. All regions of the country shared in the increase in seasonal homes during this period. By Census Regions, the average annual increase was 22,400 in the Northeast; 23,500 in the North Central; 25,500 in the South; and 13,200 in the West. These data are shown in Table XIII - 20.

According to a special survey of second homes conducted by the U.S. Bureau of the Census in 1967, there was estimated 1,550,000 second homes in the United States. Further, since some of these were jointly owned and shared by more than one family, about 1,700,000

Table XIII-20. Growth trends in seasonal and second homes,
United States and Census Regions, 1950-1960.

Year	United States	Census Region			
		North-east	North Central	South	West
<u>1950</u>					
Vacant Seasonal Dwellings	1,050,466	445,983	291,439	173,340	139,704
Nonresident Dwellings	<u>127,490</u>	<u>34,796</u>	<u>21,689</u>	<u>40,926</u>	<u>30,079</u>
Total Seasonal Units	1,177,956	480,779	313,128	214,266	169,783
Number of Occupied Dwellings per Seasonal Unit	36	23	41	59	35
<u>1960</u>					
Seasonal Dwellings	1,742,465	645,441	482,558	377,128	237,338
Held for Occasional Use	<u>281,916</u>	<u>59,670</u>	<u>65,979</u>	<u>91,947</u>	<u>64,320</u>
Total Seasonal Units	2,024,381	705,111	548,537	469,075	301,658
Number of Occupied Dwellings per Seasonal Unit	26	19	28	33	29
<u>Seasonal Units</u>					
Percentage Change, 1950 to 1960	71.8%	46.7%	75.2%	118.9%	77.7%
Average Annual Numerical Increase, 1950 to 1960	84,600	22,400	23,500	25,500	13,200
Source: 1950 and 1960 Census of Housing; DMJM Economics.					

households out of the 59 million total in the entire United States had a direct interest in a second home. Unfortunately, the second-home definition used in this survey is not comparable to those used in either the 1960 and 1950 Census measurements. However, in order of magnitude, the size of the vacation home segment of the housing market is probably in the range of at least 1.5 to 2.0 million units. Further, it may be inferred from the survey that the average annual absorption rate for vacation homes from 1960 through 1968 - 1969 will probably exceed the 84,600 rate of the 1950 - 1960 decade. For example, in the 1967 survey by the Bureau of the Census, about 300,000 households indicated an expectancy to buy or build a second home within 2 years, bringing the expected average annual rate to 150,000 units. In California alone, according to estimates of various private developers contacted, a sales rate of about 20,000 newly developed vacation home lots per year was estimated for 1968 - 1970. During the 1970's, the rate of these lot sales is anticipated to reach 30,000 or more per year.

B. Factors Affecting Demand

There are a variety of factors that affect the demand for vacation home land and thus limit the size of the market. Some of the obvious ones are the limits imposed by the income and asset requirements of second home purchasers. For example, only a fraction of all families in the U.S. have sufficient incomes to be able to afford a second home. Mortgage lenders generally restrict loans to persons with either (1) incomes beginning at about \$15,000, with more emphasis on family incomes above \$20,000 per year, or (2) assets sufficiently high that imputed annual income from these assets plus current income approaches these figures.

In 1967, only about 10.5 percent of the total households in the U.S. had incomes in excess of \$15,000 per year. The total net worth of the average U.S. family with an income in the \$10,000 to \$15,000 range is about \$30,000, but since over one-half of this sum is usually in the form of home and automobile equity and insurance, it suggests that persons with incomes below \$20,000 are not in a strong asset position. A maximum gross potential market of approximately 6,347,000 families probably exists for second home land in the U.S. but not all persons with sufficient incomes or assets to buy a second home desire to do so.

A second component of this market is retired persons. Upward movement of second home land sales has corresponded to the increase in the numbers of persons in the over-45 bracket in recent years. This group increased by 7,258,000, or 13.8 percent, between 1960 and 1968 in the U.S., representing a disproportionately large share of the total population increase. Many of these persons are either retired or contemplating

retirement, and since many own (on a free and clear basis) their first or primary home, a second home purchase for use as either a secondary or primary retirement home is financially feasible.

In addition to the above, speculation appears to play a significant role. Unfortunately, the extent of this motive, (i. e., buying a vacation home site and holding it for land value appreciation and resale) cannot be determined. However, based upon resale listings of properties in second-home developments, it is estimated that at least 10 to 15 percent of the original purchases are speculation-oriented.

This speculative urge has no doubt been encouraged by the liberal financing terms available in many developments. Judging from the almost fantastic sales success of Shelter Cove and Brooktrails in Northern California and of Lake Los Angeles and other developments in Southern California, the speculative motive has probably loomed very large in the purchase plans or motives of many buyers. Many persons obviously made purchases because they anticipated a rise in prices. In fact part of the selling effort by second home salesmen is aimed at the possibility of buyers making profits through the resale of the land. While the properties are heavily leveraged, they are also encumbered by high resale commission costs: so fairly substantial price increases must be anticipated.

The net effect of liberal terms has been to increase total demand substantially, by allowing many additional persons to purchase second home land than would ordinarily do so and has, perhaps, also allowed prices to be pushed up more rapidly than would have otherwise been possible. In fact, if it were not for very liberal financing practices, demand would probably be considerably more constrained. Despite the liberal terms of sale, it is doubtful that many families with annual incomes much below \$15,000 would be able to make second home land purchases simply because of other more pressing requirements on their incomes.

While persons may have different motives for wanting second homes, effective demand would not be expanding if it were not for certain conditions that allow it to do so. These include: (1) growth in the population, (2) growth in real income and leisure time, (3) shifts in the age structure of the population towards a growing proportion of the total being above or near retirement age, (4) congestion in cities and urban recreation areas, and (5) improvements in highway transportation and in automobiles. These and other factors have all played significant roles in stimulating growth in second home land sales in

the past; their effect on recreation demand have been covered in the various reports of the ORRRC and will not be repeated here.

In addition, taste plays an important role in the demand for second homes. Second home buyers obviously prefer this form of recreational outlet to the many other alternative uses of their recreation budget; such as travel, the purchase of a boat or an airplane, country club memberships and the like. Many purchasers are undoubtedly motivated by the desire to emulate the style and living standards of their neighbors and friends. Consumer tastes or preferences are subject to wide swings, and it is apparent that one of the fashionable things for modern families to do, if incomes permit, is to purchase a second home lot and/or to construct a second home.

C. Prospects for the Future

Precisely how large the demand for second home land will be in the future, or whether it will grow in the future at the same rate as in the past is virtually impossible to determine because of the almost complete lack of statistical information about buyers' habits and attitudes with respect to second homes. In other words, any statement about the future is, at best, highly speculative because the conditions that have governed second home land sales in the past are only dimly understood at this time. However, it will continue to grow if for no other reason than the fact that the determinants of demand will all continue to grow (i. e., population, income, leisure time, urban congestion, increasing numbers of retirees, interest in land speculation, consumer preferences for second homes as an outlet for recreation expenditures, etc.). The strength of these variables will determine whether future growth tends to be comparatively gradual and linear, or whether it becomes explosive and highly variable.

Indications as to the demand already manifest on both public and private lands are discussed below.

To provide some idea of the magnitude, however, it may be noted that some 74.7 million households are expected by 1980. Based upon the estimated proportion of second home households to total households in 1967 (conservatively estimated at 2.8 percent) there would be at a minimum some 2.1 million second homes by 1980, an increase of 600,000 over the level in 1967 or an average increase of 46,000 per year. As noted previously, however, the rate of increase indicated for 1968-69 was expected to reach 150,000 new second homes annually.

If this growth rate continues throughout the 1970's, an additional 2 million second homes will have been built between 1967 and 1980. Such growth would bring the proportion of second home households to 4.7 percent of total households. Most new second homes will be located within a few hours drive from the primary home. Consequently, most of these homes will be owned by households living within the metropolitan area.

D. Demand for Vacation Home Sites on Federal Lands

Although vacation home sites on National Forest and National Park lands have not been available for many years, except in a few more remote and sparsely populated areas, and although no publicity or public information releases are issued for the program of special use permits for this purpose, almost every Forest Service field office has experienced a steady flow of up to several hundred inquiries per year requesting information on obtaining such a permit. Not all of these inquiries would develop into permittees even if sites were available, but the volume of inquiries does indicate that demand exists. When news stories or special features (on fishing, for instance) have mentioned vacation home site permit privileges in National Forests, there has been a deluge of requests for information. For example, in two separate instances of such features by sports writers in communities near Allegheny National Forests, requests totaled over 1,000 in 2 to 3 months versus a usual range of about 1,000 during a year.

Another indication of this demand may be seen from the resales of vacation home improvements. About 10 to 15 percent of the vacation home permits in each of the National Forests turnover to new permittees annually because of the sale of the vacation home improvements. For example, of the 564 vacation home sites at Mt. Hood National Forest, where sites were first let in the early 1920's, 386 or 68.4 percent are occupied by owners who purchased the existing improvement from earlier permittees during the period from 1960 to 1968. The home sites on the Mt. Hood National Forest were all developed before 1955; actual turnover during the past few years has ranged from 80 during fiscal year 1966, 57 during fiscal year 1967, and 70 during fiscal year 1968.

E. Demand Indicated on Private Lands

Developers of private land for second home purposes are optimistic about demand, based on their own record of sales. Examples of sales rates reported at developments in various states are as follows:

1. Pennsylvania

- a. 500 lots sold in 4 years; 750 additional will be developed.
- b. 150 lots sold in 3 years; 150 additional lots are available.
- c. 1,600 lots sold in 5 years; 200 more are available; and, 2,200 more can be developed.

2. Wisconsin

- a. 280 lots sold in 4 years.
- b. 1,600 lots sold in 3 years.
- c. 850 lots sold in 1 - 1/2 years.
- d. 180 lots sold the first year the property was developed (1968); 1,900 more are available.

3. Washington

- a. 200 lots sold in 2 years; 170 additional now developed and available.
- b. Washington has many new recreation-community developments, which may be interpreted as either heavy demand or reasonable cost of supply because of a surplus of land. However, the developers are reluctant to give sales rates.

4. California

- a. A trustee handling several land development trusts stated that accounts receivable in 1968 were double the 1967 total.
- b. 4,700 lots developed; 80 percent sold in 3 years.
- c. 750 lots sold in 2 years (through sales specialists); 5,250 additional lots will be developed on a long-range basis of 10 to 15 years; 100 now available.

- d. 5,000 lots developed in three phases; first 2,500 lots sold in 5 months; expect balance to be sold in 1 - 1/2 to 2 years.

Much of the demand reported for second home properties has been generated by organizations of sales specialists who use heavy promotional programs including flying prospective buyers to the property, liberal terms of sale, and in addition the developer provides for adequate financing and construction bonding to coordinate the development needs with the sales program.

F. Supply of Land Oriented to Vacation Home Use

The evaluation of the supply of land oriented or potentially oriented to vacation home or second home use is only meaningful when location of supply is related to location of demand. An analysis of supply, on the basis of total inventory and location is beyond the scope of this study. However, some general observations will help position supply in relation to demand.

1. Relationship Between Land and Population

There are no data available as to the amount of land devoted to or available for second home use, either in total or by geographic location. However, a comparison of the amount of land available with the total population (including the portion located in metropolitan areas) provides a gross indication of the differences in pressures for land that may be exerted in various regions:

	Census Regions			
	North-east	North Central	South	West
Distribution of:				
Land	5.5%	25.4%	29.5%	39.6%
Total Population, 1960	25.0	28.9	30.8	15.3
Metro. Area Population				
1960	32.5	27.2	22.9	17.4
1965	31.5	26.5	23.6	18.4
1975	29.8	25.5	24.4	20.3

In the Northeast, 30 percent or more of the U.S. metropolitan-area residents have only 5.5 percent of the U.S. acreage available to them in their immediate area. This concentration of population in

metropolitan centers should exert extreme pressure on the supply of land available for vacation home sites as that demand materializes.

The North Central and South Regions are quite evenly balanced in relation to total land versus either total or metropolitan-area population. If suitable lands exist in these areas, there could be an adequate amount available to meet second home needs.

The Western Region has an abundance of land in comparison with its share of total population and metropolitan-area population. However, the West is the region of greatest potential population growth. On a long-range basis, then, some of the excess land would be absorbed more rapidly for urban uses than anticipated in the North Central and South.

2. Lands Available for Recreation-Oriented Purposes

a. Sources of Supply. Public lands -- under Federal, state, and local ownerships -- often include a considerable share of waterfrontage acreage on oceans, lakes and riverbeds, forested lands, and other lands that have features favorable to recreation use. Most of these agencies recognize the need to retain these recreation-oriented areas and if possible to enlarge their holdings by acquisition. In some states much of this acreage came into public ownership through tax delinquencies prior to the 1940's; a source which has not been repeated. The present sources for increasing the supply of recreation-oriented acreage include acquisition by purchase, which is becoming extremely prohibitive because of costs. Wisconsin is attempting to provide additional lands for public recreation purposes by buying easements-in-perpetuity on privately owned land which will restrict the uses to a prescribed range of public recreation facilities.

Privately owned land adjacent to or within a reasonable radius of public recreation lands offers an unusual opportunity for redevelopment into vacation home sites wherein owners may take advantage of public facilities and public greenbelt areas. These are the type of lands being accumulated from small owners and redeveloped into recreation communities in Pennsylvania. Some redevelopers even negotiate the lease of certain publically-owned adjacent lands to complement their own ownership, using the public lands for ski resorts, etc. open to the public as well as to the community residents.

Another source of land for second home developments is from farms that are being liquidated as farm production-per-acre increases and

and as population moves away from rural areas. Realtors and recreation developers in both Pennsylvania and Wisconsin contacted during this study mentioned that this could be a substantial source. Often these lands would have to be developed (tree planting, building of artificial lakes, etc.) to adapt them for second home use, but it has been done within a satisfactory cost to date. Rural areas where access has been improved due to better roads, freeways, and turn-pikes, have also added to the supply of potential second home communities. This has been a considerable influence in the development of recreation-oriented communities in Pennsylvania.

New water-oriented projects for flood control or other resource use have changed the socio-economic involvement of some communities toward recreation and tourism. This has resulted in new patterns of development for the entire surrounding area, including second home and recreation communities. Examples include Tocks Island Region in Pennsylvania and the Parker Dam - Lake Havasu Project in Arizona.

A final source -- the changes in supply of Federal lands made available for vacation home use -- is discussed in detail in the following text.

3. Supply from Federal Sources

a. Sale. The Bureau of Land Management (BLM) through their Public Sale Act of 1964, continues to make unimproved desert land available for private purchase. However, the extent of use of these sites for vacation homes is not recorded, since the use of the property is not restricted to this purpose. In 1956, there were 46,000 small tract leases involving 221,500 acres of public lands in effect in the United States and Alaska as a result of an earlier authorization, the Small Tract Act of 1938.

As an example of supply from this source the office of the Bureau of Land Management at Riverside, California, which is responsible for sales in Southern California, reports that 402 tracts were sold during fiscal year 1964; 424 during 1965; 162 during 1966; 67 during 1967; and 43 during 1968. Inquiries average about 4,000 per month, but sales are made at auctions with the minimum acceptable price equivalent to the appraised fair market value of the parcel. There are no specified number of annual additions to the supply offered as the general practice of the Bureau of Land Management is to minimize sales and to retain the lands.

The Bureau of Land Management, then, is not currently accounting for more than a small portion of supply of vacation home parcels.

b. Special Use Permits for Vacation Home Sites. A total of 19,300 vacation home sites in National Forests and National Recreation Areas (out of a total of 19,735 - see Table XIII - 1) are under Special Use Permit. This represents 1.2 percent of the 1,550,000 second homes which were reported in the previously noted 1967 survey by the Bureau of the Census.

The majority of these permits (19,160) are for sites in National Forests; the remainder (169) are in National Recreation Areas administered by the National Park Service. About 91 percent of the total permits for vacation homes in both National Forests and National Parks are located in the 11 western states. Distribution of National Forest permits, shown in Table XIII - 21 indicates that California alone accounts for 47 percent of the total.

Table XIII - 21. Distribution of vacation home special use permits in National Forests, 1968.

Census Regions	No.	Percent
<u>West</u>	(17,479)	(91.2)
Washington	1,001	5.2
Oregon	1,409	7.3
California	9,060	47.3
Arizona	1,524	8.0
Nevada	154	0.8
Utah	629	3.3
Idaho	628	3.3
Montana	878	4.6
Wyoming	1,082	5.6
Colorado	787	4.1
New Mexico	327	1.7
<u>North Central</u>	(1,009)	(5.3)
Michigan	227	1.2
Minnesota	531	2.8
South Dakota	215	1.1
Wisconsin	36	0.2
<u>Northeast</u>	(213)	(1.1)
Pennsylvania	213	1.1

Table XIII - 21. Continued.

Census Regions	No.	Percent
<u>South</u>	(456)	(2.4)
Kentucky	17	0.1
Arkansas	7	a
Florida	193	1.0
Georgia	34	0.2
Louisiana	88	0.4+
Mississippi	4	a
North Carolina	27	0.1
Tennessee	78	0.4
Virginia	6	a
West Virginia	2	a
U.S. (43-State) Totals	19,160	
^a Less than 1/10 of 1 percent. Source: U.S. Forest Service.		

When distribution of vacation home permits in National Forests and Recreation Areas is compared with both the distribution of total population in metropolitan areas, and the distribution of total seasonal housing, the impact is almost totally in the West. (See Table XIII - 22)

A few parcels for vacation home sites in National Forests still remain in some of the less populated areas of Montana, Utah, and eastern Washington-Oregon, but their number is minimal. There have been few, if any, additions to the supply in either National Forests or National Recreation Areas since approximately 1955, although some permits have been issued since that time for sites not subscribed earlier. As noted previously, however, the policy of both Federal agencies has been not to develop new tracts or add new sites since 1964.

Permits which have been terminated for the purpose of recovering the vacation home sites totalled 433 from 1916 through June of 1967. About 700 more terminations are expected to occur within the next ten years,

Table XIII - 22. Comparison of population distribution with vacation homes distribution by Census Regions.

	U.S. Total	Census Regions			
		North- east	North Central	South	West ^a
Distribution of --					
Population, 1960					
Total	100.0%	25.0%	28.9%	30.8%	15.3%
Metropolitan Area	100.0%	32.5	27.2	22.9	17.4
Vacation Home Permits, 1968					
Forest Service	100.0%	1.1%	5.3%	2.4%	91.2%
National Park Service	100.0%	--	--	--	100.0%
Total	100.0%	1.1%	5.2%	2.4%	91.3%
Seasonal Dwellings and Homes Held for Occasional Use, 1960 Census	100.0%	34.8%	27.1%	23.2%	14.9%
^a Excludes Alaska and Hawaii.					
Source: Census of Population, 1960; Census of Housing, 1960; U.S. Forest Service; DMJM Economics.					

but the firm commitment will depend on the availability of Federal funds for reuse of the site, according to present policy. Permits are extended beyond the intended termination date if budgets for redevelopment of the areas are not approved.

A list of the actual number of terminations annually, from 1952 to 1967, was shown earlier in this report.

G. Extent Supply Satisfied Demand

Vacation home permits on Federal land supply only a very minute share of total demand -- about 1.2 percent. Also, in view of the locational concentration of vacation home sites on Federal lands versus the concentration of population, supply of homesites in National Forests could never fulfill a major share of U.S. demand for second homes. This does not mean that there has not in the past been a strong demand for sites on Forest lands. Inquiries to the Forest Service for vacation home permits occur at a constant rate of several hundred to a thousand or more per office per year. Although all inquiries would not automatically result in a request for permit if sites were available, every Forest Service office contacted recognized the need for more vacation home sites if the demand were to be satisfied. In addition, the turnover of permits at the rate of 10 to 15 percent per year, usually at a premium price for the improvement, is further indication that supply did not satisfy demand.

Future demand, however, should be tempered by the new structure of permit fees for vacation home sites on Federal lands. The recent adjustments in annual rental rates based on fair market value of the unimproved parcels (the recent GAO policy) will probably tend to reduce demand. Further, the comparability of charges for public versus private sites should have the effect of making the consumer indifferent to selection, provided the sites were fairly similar in terms of amenities and location. If there were this similarity, it is probable that a greater demand would be manifest for private lands, instead of public lands, as typically the private developer provides more services (roads, etc.). Also, in view of present trends toward private purchase of second homes for purposes other than vacation residences -- purposes which are restricted in the National Forests -- the demand for sites in National Forests based on fair market value would probably decrease. Private ownership of parcels seems to satisfy the desires of users better than leasing of parcels. Thus, it is probable that given comparability in charges, amenities and services for both public and private land, the demand will probably be satisfied largely by the private sector.

Footnotes

1. As used in this study, the terms vacation home, recreation home, seasonal home and second homes are considered synonymous.
2. The 1950 Census of Housing listed two categories applicable to vacation or seasonal homes: "nonresident dwelling units" which were units occupied temporarily by persons who lived elsewhere, and "vacant seasonal housing" which were units intended for occupancy during only a portion of the year, primarily in resort areas. However, this seasonal housing also included some seasonal farm and lumber camp housing for itinerant workers.

In the 1960 Census of Housing, the two applicable categories were described as "dwelling held for occasional use" and "seasonal housing."

CHAPTER XIV

OTHER USES

CHAPTER XIV

OTHER USES

I. RAILROAD RIGHT-OF-WAY USE

Because of the nature of the Government grants of land to railroad companies, much of the land underlying the railroad rights-of-way is public domain. It is of concern to the Government that these lands provide maximum benefit to the public. This section of the report will consider the railroad right-of-way lands and recent occupancy patterns. Problems associated with achieving the best use are presented in Part 5, "Analysis of the Present System." A brief history of the establishment of railroad rights-of-way provides the background necessary to understanding the occupancy use, problems and limitations presently evident, particularly problems associated with the questions of ownership, multiple-use and conveyance of interest.

The majority of the information presented in this section was obtained by reviewing legislation and congressional hearings on railroad rights-of-way. The information was supplied through the Public Land Law Review Commission Staff and through their cooperative efforts, additional information was obtained from the Department of the Interior, Bureau of Land Management, Department of Justice and the National Archives.

Contacts were made with the local offices of the Union Pacific Railroad Company, the Southern Pacific Company and the Santa Fe Railway Company. These contacts were by personal interview and extensive telephone conversations with the real estate division and legal counsel of the individual railroad companies. The information thus obtained related to current occupancy use of railroad right-of-way. The railroad policies and use of right-of-way land are discussed in detail in the appropriate section of this report.

A. Historical Background

American land policy during the 19th Century had several objectives, 1/ two of which directly relate to railroad rights-of-way:

- (1) to produce revenue for the Government to refund the heavy debts contracted during the Revolution; and

- (2) to facilitate the settlement of growth of new communities, e. g., rapid expansion of the West.

Toward that end the Congress enacted a series of laws providing for the acquisition of public lands by both private and public groups.

Very early the public land states were disenchanted with Federal ownership. Although they had been accepted on equal footing with the original 13 states, they were denied ownership of ungranted land within their boundaries. One of the major ways for the states to acquire the land was by means of grants for internal improvements including railroads. Through the middle of the 19th Century, however, the public lands had not produced the expected revenue nor was expansion as rapid as desired. Therefore, Congress adopted a new approach; that of opening up land for development by granting land in fee to aid in the construction of railroads.

Congress granted railroad rights-of-way through the public lands beginning in 1835. The width of the early grants ranged only from 60 to 100 feet. In 1852, Congress adopted a general law giving 200-foot rights-of-way and authorizing companies to use material from adjacent public lands to aid in construction of the railroad, and to utilize additional land for depots and water tanks. ^{2/}

In 1850 Stephen A. Douglas and John Wentworth pushed through Congress legislation providing a grant of land in addition to rights-of-way for a railroad. The Chicago and Mobile Act, ^{3/} as signed by President Fillmore September 20, 1850, granted the States of Illinois, Mississippi and Alabama a right-of-way for a railroad through central Illinois from Dunleith across Mississippi and Alabama to Mobile on the Gulf. The grant was for a 400 foot right-of-way together with land in even numbered sections within 6 miles of the line. This additional land was given to help finance the road. Although the land was granted to the states, Illinois, as did most states, turned the rights-of-way, the land grant and a liberal charter over to a railroad company (in this case the Illinois Central Railroad). By 1856, 700 miles of track had been laid for this line. Early sales of land at an average price of \$11.84 per acre ^{4/} plus a growing volume of traffic made the railroad company a spectacular success.

The rush for railroad rights-of-way and land grants was on: From 1850 to 1871, each railroad grant either to a state or directly to a railroad company, was the subject of a special act of Congress. These grants can be classified as the special grants which were made prior to 1875. Development of railroads under the special grants which involved

in-place sections began on September 20, 1850 (9 Stat. 466), and extended through the Act of March 3, 1871 (16 Stat. 573). This period of transportation development activities resulted in the issuance of 89 grants, 17 of which later were declared forfeited by Congress for failure to carry on the construction work.

In order to clearly understand the present problems regarding the rights-of-way across public lands, it is important to review the exact nature of the special grants prior to 1875. Each special grant was the subject of a separate Act of Congress. The lands involved were of two types which were specifically separated in the language of the Act. In effect, each Act of Congress contained two grants. One grant was for land in fee simple without any use restrictions. This was the land given in alternate sections which were to be later sold by the railroad companies in order to provide funds for construction. The other grant was for rights-of-way over which the railroad itself would pass. This included right-of-way for adjacent stations. This right-of-way grant, however, granted the right of use for railroad purposes only and therefore could not be sold by the railroads for other purposes. Until recently, failure to use the right-of-way for railroad purposes resulted in a forfeiture by court or congressional action or by relinquishment. There are several decisions which help to clarify this distinction of two grants within one act of Congress. The right-of-way takes effect at the time of the enactment of a statute, even though the definite location of the line of the railroad may not be made until later. 5/

A railroad company may not alienate any part of a right-of-way granted, and no one can acquire the right-of-way through adverse possession. 6/ Even where the right-of-way crosses a section granted in fee to the railroad, it has been held that there is no merger of the railroad's rights under the two grants. 7/ The issuance of a patent to lands crossed by a railroad right-of-way grant does not convey any interest in the lands included within the right-of-way. 8/

By 1871 the estimated area of grants for railroad purposes was 158,293,376 acres. 9/ The burden of special legislation (a separate Act for each grant), plus the enormity of this acreage granted and the mounting pressure from homesteaders and conservationists finally resulted in a policy change in Congress as evidenced by the General Railroad Right-of-Way Act of March 3, 1875. 10/ This Act made no land grants but granted a right-of-way for 100 feet on each side of the centerline of the road, plus material, earth, stone, and timber necessary for the construction of the railroad. Included also were rights-of-way for ground adjacent to the trackage right-of-way, to be used for

station buildings, depots, machine shops, side tracks, turnouts, and water stations, not to exceed in amount 20 acres for each station, to the extent of one station for each 10 miles of its road.

The special grants of land in fee did not include any special provisions for forfeiture or abandonment. Some of them, however, did contain language to the effect that land granted in fee was to be sold only as construction of the line progressed. If construction was not completed at all or on time the unsold lands were to revert to the United States. ^{11/}

In 1890, Congress legislated the Railroad Land Grant Forfeiture Act. ^{12/} This legislation was specifically directed towards lands granted in fee. The pertinent Section reads:

"Lands granted to any state or corporation to aid in the construction of a railroad opposite to and coterminous with the portion of any such railroad not completed and in operation are forfeited and restored to public domain.

"No rights are to inure to the benefit of any corporate or state grantees where the lands have been forfeited nor shall the moiety (half or portion) of the lands granted to any railroad company which has only partially performed within the limits of the grants, inure by virtue of the forfeiture to the benefit of the completed line where only one of a number of lines has been completed."

It was not necessary to legislate on the granted rights-of-way because both special and general rights-of-way were granted for railroad purposes only, with an automatic reverter to the United States if not so used. In addition, under the 1875 Act, which governed the general grant of railroad right-of-way, there was an express provision of forfeiture for nonconstruction.

By Acts of June 26, 1906 ^{13/} and February 25, 1909, ^{14/} the Congress made a legislative adjudication of forfeiture for nonconstruction under the 1875 Act, *supra*, prior to February 25, 1909. It is of interest to note that under this statute

"The United States resumes full title to the lands covered thereby free and discharged from such easement, and the forfeiture declared shall, without need of further assurances or conveyances, inure to the benefit of any owner or owners of land conveyed by the United States prior to such date subject to any such grant of right-of-way or station grounds."

This Act was forerunner to two other Acts legalizing certain types of conveyances of granted railroad right-of-way. The Act of May 25, 1920, 15/ authorized railroad companies to convey to a state, county or municipality any portion of the right-of-way granted by Congress to be used as a public street, provided the right-of-way is not diminished to less than 50 feet on either side of the center of the main track. The Act of March 8, 1922, 16/ further provided that upon Congressional or judicial declaration of forfeiture or abandonment, right-of-way or sites for railroad structures on or across public lands no longer used for such purposes, shall, except for that part within a public highway, be transferred to the grantee to whom the United States has conveyed the whole of the legal subdivision traversed or occupied by the railroad facilities. Land within a municipality was excepted with the title vesting in the municipality. By this Act the United States relinquished its interest in right-of-way land traversing those alternate sections patented in whole to an individual.

B. Occupants to Whom the United States Conveyed Its Interest, 1953 to 1967

There are many instances of land conveyance by railroad companies to innocent purchasers. One of the reasons for this was due to the fact that while the special grants to railroads separated land grants from right-of-way grants in the original Act of Congress, subsequent patents of the land grants did not note if right-of-way crossed them. As a consequence, there are many cases where the railroad companies sold the land in its entirety, including the right-of-way for which they did not possess title, to innocent purchasers. Even in cases where the grants to the railroad were after 1875, the same situation occurs. The railroad received a right-of-way grant which traversed land subsequently patented to another party. The patentees and subsequent innocent purchasers, not realizing the right-of-way was 200 feet in width, located quite close to the actual tracks proceeded to construct buildings, or otherwise use the land in the right-of-way and later subdivided and sold the property.

Successors in interest to this type of land have become aware of the fact that they do not possess perfect title to property they purchased from railroad companies or adjacent fee owners. In order to perfect title, they must seek relief from Congress through validation of the original conveyances, since the United States must release its interest in the right-of-way.

Between 1953 and 1967 at least 25 bills of this nature were introduced in the House of Representatives. In addition, at least eight more were introduced in the Senate. Table XIV-1 shows the bills presented before each Congress for the period 1953 to 1967. Only a few such bills have resulted in private or public laws which validate railroad conveyances. Table XIV-2 lists eight such enacted laws. As noted, the records are not always available which detail the acreage involved or the number of occupants. In only one case was the Government compensated for validating a conveyance (Public Law 86-784) with receipt to the Government in the amount of \$4,200 for 10 acres.

C. Railroad Rights-of-Way on Which Property Rights Are in Question

The entire subject of railroad right-of-way property rights revolves around their occupancy use. Where rights-of-way are fully utilized for railroad purposes there is no question or problem. The problem arises when rights-of-way are used for nonrailroad purposes (including not being used at all). The United States has an interest in all granted railroad rights-of-way. This interest is multifold. As a proprietor the Government has an interest in rights-of-way that will revert to the United States if not used for railroad purposes. Even in right-of-way granted under the Act of 1875 supra and subject to the Acts of May 25, 1920 and March 8, 1922, the Government has an interest in right-of-way not used for railroad purposes by virtue of being guardian of the public's interests in that land.

In order to determine the magnitude of the interest the United States possesses in rights-of-way granted under both the special and general Acts, the acreage involved must be determined. Toward that end there has been extensive searching of the records in the Department of Interior; both the present day Bureau of Land Management and the records of its predecessor the Land office. To the extent that records are available it was revealed that there is no accounting of acreage, mileage or specific location of granted railroad rights-of-way.

On June 29 and 30, 1961, Mr. Karl S. Landstrom, then Director of the Bureau of Land Management, testified before a Congressional Committee that there was no accounting system, in his agency or in the Department of the Interior, that would take into account the amount of land involved strictly in railroad rights-of-way granted since 1835. 17/

Table XIV-1. Bills introduced for validating conveyances of land
by railroad companies within railroad rights-of-way
1953-1967.

Congress	House	Senate
83rd	H.R. 171 H.R. 1127 H.R. 4047 H.R. 7881	S. 708
84th		
85th	H.R. 6519 H.R. 9101 H.R. 13026 H.R. 9792 H.R. 2150 H.R. 2137	S. 6519 S. 2085 S. 2088
86th		
87th	H.R. 7550 H.R. 6161 H.R. 7436 H.R. 3229 H.R. 3346 H.R. 5745 H.R. 6630 H.R. 6945	S. 2465 S. 2580 S. 2465 S. 2580
88th	H.R. 3901 H.R. 1136 H.R. 3900 H.R. 9171 H.R. 6582 H.R. 5551 H.R. 3899	
Source: Public Land Law Review Commission.		

Table XIV-2. Laws validating conveyances of land
by railroad companies within railroad rights-of-way
1953-1967.

Year	Act	Date	No. of Conveyances	Acres	Receipts
1953	Private Law 83-218 (67 Stat. A75)	8/14/53	2	Unknown	None
	Private Law 83-227 (67 Stat. A78)	8/15/53	3	43.01	None
1954	Private Law 83-958 (68 Stat. A275)	8/31/54	1	Unknown	None
1955	None				
1956	None				
1957	Public Law 85-139 (71 Stat. 354)	8/14/57	Unknown	2.5	None
1958	Public Law 85-565 (72 Stat. A98)	8/14/58	Unknown	1.16	None
	Private Law 85-583 (72 Stat. A111)	8/14/58	Unknown	0.125	None
	Private Law 85-601 (72 Stat. A119)	8/18/58	1	2.5	None
1959	None				
1960	Public Law 86-784 (74 Stat. 1022)	9/14/60	Unknown	10.0	\$4,200
1961	None				
1962	None				
1963	None				
1964	None				
1965	None				
1966	None				
1967	None				
Source: Department of Interior Records as furnished by Public Land Law Review Commission.					

In 1962 the Department of Interior was to have performed a survey to determine the number of tracts in railroad right-of-way on which property rights were in question by virtue of occupancy use for non-railroad purposes. Correspondence from Stewart L. Udall, Secretary of the Interior, to Wayne N. Aspinall, Chairman, Committee on Interior and Insular Affairs, under date of July 26, 1963, revealed that the Department of Interior had contacted railroad companies and determined that the cost, time and manpower requirement for such a study were prohibitive. As a consequence the study was not carried out.

In the January 18, 1963 correspondence to the Director of the Bureau of Land Management from Neal D. Nelson, the State Director, California, reference was made to preparation of a detailed land status from the records of the Land Office. Mr. Nelson outlined some of the problems such an inventory would encounter as follows:

"... we do not have the time or manpower now available to make a complete study ...

"Processing of the R.R. lists, i. e., adjudication, including acknowledgement of pre-emption rights, mineral claims, contests, hearings, denial of certain lands and patenting was handled by the G. L. O. primarily at the Washington level before establishment of the Bureau of Land Management. The R.R. companies under the Acts of '62 and '64 were privileged to file their "list" upon the completion of each ten mile stretch of track. History reflects that sometimes 20 or 30 miles were completed before lists were filed and sometimes these were filed in two General Land Offices where the land districts adjoined. Note: Maps showing the R.R. line or track as completed was a mandatory requirement for each new list filed. These maps are filed in Washington, therefore, there is no record of the final location of the different railroads in the land offices.

"By the terms of the right-of-way grants, the reservation to the United States was automatic, accordingly, such rights-of-way were never shown in subsequent patents issued, embracing lands in odd numbered sections which title was denied the railroad, or in even numbered sections.

"In northern California alone, when we look at the description of all of the lands to which the Western Pacific Railroad, the Central Pacific Railroad, and the Southern Pacific Railroad sold to innocent purchasers, we visualize in excess of a man year to even consider running a complete status check. I say this for the reason that much of the land sold is in the Mother Lode where two tract books were maintained by former General Land Offices, i.e., a land and a mineral tract book. Then too, in many instances, a complete examination of the serial register and examination of rejected and closed case files would likewise need to be made. A number of applications have been rejected as was mentioned previously. The rejections were upheld and the cases closed, but it was not determined at the time whether or not occupancy was involved. We believe there are many occupancy cases on lands which the railroads sold. In some instances, we would find occupancy on land which was denied the railroad because of its mineralization but they had already sold the land before being advised of that fact; and in other instances they sold the land which they never applied for."

Research conducted in this study, however, did reveal that there is one compilation of railroad grants. A "Statement Showing Land Grants Made by Congress to Aid in the Construction of Railroad, Wagon Roads, Canals and Internal Improvements" was compiled from the records of the General Land Office in 1915. In this listing (which primarily details land grants in fee to aid the railroads) there was a total trackage of 21,510 miles to be laid under grants through 1871. A rough estimate of right-of-way acreage can be made by multiplying the miles of track laid (21,510) by the 400-foot wide right-of-way granted under the special grants prior to 1875. (It was not until the 1875 Act, *supra*, that the right-of-way which was authorized was uniformly reduced to 200 feet in width.) Add to this a right-of-way of approximately 20 acres for every 10 miles of track for station lands, depots, etc., and the resulting figure is approximately 1,085,020 acres. While a million plus acres of land is significant enough to be of concern to the Government, the figure thus derived can not be substantiated. Not all of the right-of-way was across public land. Much of the right-of-way traversed railroad fee simple land and under the Act of March 8, 1922, would revert to the railroads on abandonment. In addition, this

right-of-way is in long strips dispersed across the Nation. Even if the exact amount of right-of-way acreage were known, management of such awkward pieces of real estate could prove to be financially burdensome to the Government.

D. Uses Being Made of Railroad Rights-of-Way

Many court cases have considered the question of what use a railroad company can make of its right-of-way where it has been determined that such right-of-way is less than fee title.

Generally, railroads have taken the position that they are entitled to use the right-of-way for "any use indispensable to, or which will facilitate the fulfillment of the objects of their corporate existence."^{18/} Historically there are certain uses which if not specifically condoned, have nevertheless been allowed. These right-of-way uses fall under four general use categories: (1) rail traffic producers; (2) agricultural; (3) highways and roads; and (4) utility crossings.

Rail traffic producers are industrial and manufacturing uses. The railroad companies execute leases for such use up to 5 years duration with renewal clauses. All leases range from 30-day to 1-year cancellation basis. The longer time being allotted by some of the railroad companies to those lessees who have constructed substantial improvements. These leases are charged on a fair market appraisal of the specific land involved. By leasing to rail traffic producers, there is a mutual benefit in that neither party has to build and maintain expensive freight stations and team trackage, and considerable rail traffic is developed.

Agricultural leases are maintained throughout rural areas for grazing or crop production. Their terms are very liberal; 20 years at \$1 per annum, regardless of length, and can be terminated on 30 days written notice, if required for railroad purposes.

While these leases are not with rail traffic producers, for the most part they are of benefit to the railroads. Railroad companies are protected from adverse possession. In passage of the Norris Act, (June 24, 1912) adverse possession does avail according to the statutes in effect in some states. It therefore became obligatory for railroads to lease to abutting owners, or eject them in order to protect their right-of-way. The conditions of these leases require that the land be

kept free from weeds and brush, fire hazard or obstructions to a clear view. The advantage is that abutting owners make good use of the land and railroad companies benefit by not having to police their property limits or incur maintenance expense.

Roads and highways can be leased or conveyed under the Act of May 25, 1920^{19/} which authorizes conveyance for public roads or highways to a state, county or municipality subject to a 100-foot right-of-way retained for the railroad. In many cases, railroads have conveyed this land. In other cases, they lease it. Rights-of-way for county highways are leased on 25-year terms at \$5 per annum, regardless of length, with a 90-day termination clause. State highways are leased for a term of 50 years (so project qualifies for Federal Aid) at \$5 per annum, with 6-month cancellation clause. There is also an agreement by some railroad companies that, if cancellation is required, they will pay relocation, including land costs.

Railroad companies grant licenses to cross (at right angles) right-of-way for highways, pole lines, wire lines, pipelines, etc. There is a flat fee per crossing ranging from \$25 to \$50. Those utility users that occupy right-of-way longitudinally are handled in the same manner as are industrial and manufacturing leases.

In addition to the four use categories which have been allowed, there is much use of railroad right-of-way for nonrailroad purposes. The Coeur d'Alene, Idaho case study presented in this report lists some of these uses, i. e., a motel, hamburger stand, service station, residence, warehouses, etc. In a letter from Neal D. Nelson, California State Director of the Bureau of Land Management, ^{20/} there are listed various types of unauthorized occupancy use of rights-of-way, including timber trespass, residential use, commercial uses, mineral trespass, agricultural use, etc.

It is obvious then, that railroad rights-of-way are being used for any and every use. It is not possible to determine the extent of each type of occupancy use. As discussed previously, various proposals have been made to obtain a detailed land status inventory of railroad rights-of-way. In each instance, it was determined that the time, manpower and cost constraints were too great to warrant such a study.

E. Government Cloud on Conveyed Right-of-Way

There are three ways of knowing whether a railroad company has conveyed right-of-way which was not theirs to convey. First, if the party to whom the conveyance was made seeks Congressional validation. Secondly, the matter comes to court in some way. Thirdly, to examine the evidences of actual land use, and the recorded private conveyances.

Research with the Department of Justice, the Attorney General's office and the Department of Interior revealed no such court cases pending at present.^{21/}

An assessment of future possible cases would depend on an inventory of right-of-way land in which ownership rights are in question. As noted several times previously, there is no such inventory at present, nor is there one scheduled for the future.

II. MILITARY AND OTHER FEDERAL GOVERNMENT USE OF PUBLIC LAND

Although nearly all Federal agencies control some portion of the Public Domain, the greatest amount of Section 10 lands is under the jurisdiction and control of only a few. In many areas lands under the control of these major land managing agencies are adjacent to each other or intermingled. As a consequence, it becomes necessary for these agencies to cross one another's lands. An example of this exists in Montana and South Dakota where the Bureau of Land Management and the U. S. Forest Service control intermingled forest land. In addition, there are many Federal agencies that control very little Section 10 lands and require occupancy use of additional public land not under their jurisdiction.

The purpose of this section of the report is to show: (1) the amount of acreage and type of use made of Section 10 lands which are used by agencies other than the controlling Federal agency, and (2) the extent to which permits, easements, notations or other arrangements have been used as an alternative to withdrawal. Further, a discussion is provided of criteria for choosing a particular authorizing instrument. A comparison is made of the withdrawal system versus use of the other instruments. This discussion points up the effectiveness of each system in minimizing the impact on other natural resource use while providing for the occupancy use needs of other Federal agencies.

Information relating to the documents authorizing use by another Federal agency was collected from the controlling agencies through telephone interviews with personnel of the Forest Service, Bureau of Land Management, National Park Service and Bureau of Sport Fisheries and Wildlife.

Data on acreages and occupancy use were supplied by some of the Federal agencies which control the majority of the public lands. The data listed the "other" agencies using their land, the instrument authorizing such use and the acreage involved for the years 1958 through 1967. The agencies which reported are:

Bureau of Land Management
Bureau of Reclamation
National Park Service
Bureau of Sport Fisheries and Wildlife
Forest Service
Atomic Energy Commission^{22/}

A. Use of Section 10 Lands by Noncontrolling Federal Agencies

As a general rule, title to Federal real property, including public domain land, is vested in the United States as an entity. While title to Federal real property is normally in the United States,^{23/} control almost always is in some specified department or agency. "Control" is the term used to describe the authority of the head of a particular department or agency to use, manage, operate and otherwise act with respect to real property.^{24/} However, one Governmental agency cannot convey title or lease real property under its control to another agency. Further, one Governmental agency cannot initiate condemnation proceedings to obtain Federally-owned property under the control of another.^{25/}

When a Federal agency requires the use of public domain land controlled by another agency, it can only do so through two systems: 1) withdrawal and/or reservation, and 2) use authorizations (e.g. permits, agreements, 44LD513, and memorandum of understanding). The basic differences in the two systems are 1) withdrawals are the only instrument whereby control of public domain land is passed from one agency to another; 2) withdrawal segregates public domain land from the operation of the public land laws; and 3) use authorizations allow occupancy use but do not transfer control. The transfer of ownership is not involved in either withdrawal or use authorization use since title rests with the United States Government as an entity as indicated above.

During the period 1958 through 1967 many Federal agencies made use of Section 10 lands controlled by other agencies. The following Tables and discussion indicate acreage by using agency, acreage by occupancy use, and acreage by authorizing instrument.

1. Limitations of Data

No controlling agency data was available from the Department of Defense. Since the Department of Defense agencies control some 14,902,788 acres of Section 10 lands^{26/} within the contiguous United States, it is obvious that this report cannot reflect a complete picture of the amounts of public land used by noncontrolling Federal agencies.

An additional limitation was due to incompleteness of data which the controlling agencies were able to provide.

The Bureau of Land Management was unable to determine and report acreage except for the years 1968, 1969 or "latest fiscal year for which data is available." This information was eliminated because it did not

indicate whether the acreage reported was in addition to or a continuation of the 1958-67 trend period.

The entire Bureau of Sport Fisheries and Wildlife report was for 1968 and was likewise eliminated because no trends could be analyzed. Considerable data from the National Park Service was eliminated because no acreage was reported.

The data supplied by the Forest Service was treated separately because they were unable to determine and report the using agency. In addition, their report was only for odd number years from 1957 through 1965.

Reference to percentages of land used by a particular agency, occupancy use or authorizing instrument, relates the percent of acres for each factor to the total acreage reported in any year.

2. Federal Government Use of Section 10 Lands by Noncontrolling Agency²⁷ (Table XIV-3)

a. Atomic Energy Commission. From 1959 through 1967 the Atomic Energy Commission has utilized between 80 percent and 98 percent of all public land under use by other than the controlling Federal agency. All of this land is under permit from the Air Force and consists of the Tonopah Test Range and the NTS in the Pahute Mesa in Nevada. They have additional periodic exclusion rights in the expanded impact area of these locations by agreement with the Bureau of Land Management and the Forest Service; however, specific acreage was not reported.

b. Army. The Army has used 2,592 acres from 1958 through 1966. In 1967 they used an additional 1,199 acres.

c. Air Force. With the exception of 80 acres in 1958 and 1961, the Air Force did not use any Section 10 land until 1963. Between 1963 and 1967 they increased use of land not under their control by 45.7 percent.

d. Navy. Between 1958 and 1962 the Navy used from 2,500 acres to 4,760 acres. From 1963 they used 29,179 acres. As of 1967 this figure had almost tripled to 87,779 acres.

e. Bureau of Reclamation. As seen in Table XIV-3, there is no particular pattern or trend evident in this agency's use of land not in their control. In 1966 the acreage used jumped to 33,295 acres from 1,625 acres used the previous year. The reason for this was not evident in the data supplied.

Table XIV-3. Federal Government use of Section 10 lands
by noncontrolling agency,
1958-1967.
(In acres)

Agency	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Atomic Energy Commission	-	369,280	369,280	369,280	369,280	471,996	471,996	471,996	471,996	471,996
Army	2,592	2,592	2,592	2,592	2,592	2,592	2,592	2,592	2,592	3,791
Air Force	80	-	-	80	-	7,520	9,490	6,360	-	10,960
Navy	3,920	4,760	2,500	2,720	2,939	29,179	29,244	29,179	40,514	87,779
Corps of Engineers	-	-	-	-	-	-	-	2	2	2
Bureau of Reclamation	3,743	880	155	-	5	1,783	1,772	1,625	33,295	1,917
Bureau of Land Management	-	-	-	-	40	-	1,180	2,550	1,520	2,240
Bureau of Indian Affairs	80	60	60	61	300	60	60	150	182	357
National Park Service	-	-	-	-	-	840	2	1,180	320	-
U.S. Geologic Service	1	1	1	1	1	1	1	1	1	1
Bureau of Sport Fisheries and Wildlife	1	45	45	45	45	45	45	205	45	45
Forest Service	-	-	-	-	-	3	3	1	1	3,596
International Boundary and Water Commission	561	561	561	561	561	561	561	561	561	561
Federal Aviation Administration	-	-	-	-	-	620	-	-	-	-
Department of Justice	20	-	-	-	-	-	-	40	40	-
Bureau of Public Roads	-	-	240	-	-	-	-	-	-	-
Coast Guard	219	219	219	219	219	219	229	229	229	229
U.S. Weather Bureau	-	-	-	-	-	7	-	-	-	-
Total	11,217	378,398	375,653	375,559	375,982	515,426	517,175	516,671	551,298	583,474
Source: Individual Federal agencies, as supplied through the Public Land Law Review Commission.										

f. All Other Using Agencies. All other using agencies reported negligible amounts of Section 10 land not in their control for the years 1958 to 1967.

3. Acreage by Occupancy Use of Section 10 Lands Under Use by Noncontrolling Agencies^{28/} (Table XIV-4)

As is readily seen in Table XIV-4, acreage in Education/Science/ Research use constitutes from 80 to 98 percent of the total from 1959 to 1967. It should be noted that military use has increased, especially in 1964 and 1967. None of the remaining occupancy uses reported show any notable trends. Transportation use in the 1965 to 1967 period, and communication, water transmission and community facilities appear to have declined considerably.

4. Acreage by Instrument Authorizing Use of Section 10 Lands By Noncontrolling Agencies (Table XIV-5)

Acreage under Permits increased 42.5 percent for the period 1959 to 1967. In 1967 acreage under agreements was seven times greater than 1968.

There was no pattern evident for acreage under 44LD513^{29/} or Memoranda of Understanding.^{30/}

5. Acres Under Control of Forest Service Used By Other Federal Agencies (Table XIV-6)

As of 1965 acreage for utility facilities had increased to 10-1/2 times greater than its 1957 figure. Communication facilities rose from 100 acres in 1957 to 2,477 acres in 1965, almost 25 times greater. Community related facilities (reported as reservoir acreage) increased by a magnitude of seven from 1957 to 1965. Military use tripled in size. Other Federal Government (mainly administrative sites) doubled.

Transportation, water transmission and education science and research uses have not shown any definite trends. It may be noted that in 1963 there were 28,979 acres used for Education Science and Research. The reasons for this isolated increase were not deduceable from the data supplied.

In general, Forest Service acreage managed by other Federal agencies has tripled from 1957 to 1965.

Table XIV-4. Section 10 lands used by noncontrolling Federal agencies, by occupancy use,^a
1958-1967.

(In acres)

Occupancy Use	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Transportation	1,300	600	240	-	-	3	1,775	1,691	34,571	4,013
Utilities	-	60	-	-	-	-	-	1,620	80	4,045
Communications	1,698	-	-	1	280	700	-	160	242	307
Water Transportation	786	221	156	1	6	1	3	1	1	1
Community Facilities	-	-	-	-	-	1,703	1,180	837	407	7
Education, Science, and Research	-	369,280	369,280	369,280	369,280	471,996	471,996	471,996	471,996	471,996
Military	6,592	7,352	5,092	5,392	5,531	39,291	41,326	38,131	43,106	102,210
Other Federal Government	841	885	885	885	885	1,732	895	2,235	895	895
Total	11,217	378,398	375,653	375,559	375,982	515,426	517,175	516,671	551,298	583,474

^a No data were reported for the following occupancy uses: Residential, Industrial/Commercial, Heavy Industrial, Reservoir Flowage, Other Non-Federal Government.

Note: Forest Service data not included as only odd-numbered years from 1959-1965 were reported separately.

Source: Individual Federal agencies, as supplied through the Public Land Law Review Commission.

Table XIV-5. Section 10 lands used by noncontrolling Federal agencies, by authorizing instrument, 1958-1967.

(In acres)

Authorizing Instrument	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Permit	300	369,544	369,544	369,624	369,544	479,783	483,535	478,638	472,918	526,755
Agreement	7,134	7,974	5,714	5,934	6,153	32,393	32,458	32,553	43,728	50,127
44LD513	3,783	880	395	1	280	2,403	1,182	4,300	34,652	6,592
Memorandum of Understanding ^a					5	847		1,180		
Total	11,217	378,398	375,653	375,559	375,982	515,426	517,175	516,671	551,298	583,474

^a Does not include Forest Service data. See Table XIV-6.

Source: Individual Federal agencies, as supplied through the Public Land Law Review Commission.

Table XIV-6. Forest Service Section 10 lands used by other
Federal agencies under Memorandum of Understanding,
1957-1965.

(In acres)

Occupancy Use	1957	1959	1961	1963	1965
Transportation	-	45	-	348	10
Utilities	1,264	1,264	1,681	7,726	13,355
Communication	100	172	121	511	2,477
Water Transportation				578	578
Community Related	35,031	41,801	41,980	67,140	249,192
Education, Science, and Research		49	49	28,979	86
Military	1,051,074	1,175,115	1,652,105	2,951,319	3,140,946
Other Non-Federal Government	2,039	2,194	2,678	2,227	4,137
Total	1,089,508	1,220,640	1,698,614	3,058,828	3,410,781
^a Using agency not available. Source: U. S. Forest Service.					

B. Use of Authorizing Instruments as an Alternative to Withdrawal

1. Resource Management of the Federal Agencies

A review of the primary functions of Federal agencies provides a basis for understanding the rationale for selection of authorizing instrument when another agency uses their lands. All of the agencies, except those in the Department of Defense, were created to manage the public lands and conserve the natural resources of the nation. The primary function of the Department of Defense is to preserve national security. It is for these security reasons that they most often acquired land through the withdrawal process.

The Atomic Energy Commission is also concerned with security and quite often makes use of lands under control of the military agencies or through withdrawal.

The Bureau of Land Management as successor to the General Land Office had as one of its major responsibilities the record keeping functions for the public lands. Bureau of Land Management was established to dispose of public land no longer needed for government use as well as to provide protection of watershed, and timber resources, etc. More recently it has been more active in the management of natural resources under its jurisdiction.

The Forest Service has some of the same functions as the Bureau of Land Management, i. e. forest and range management, watershed protection, wildlife conservation and providing recreational facilities. Whenever Forest Service and Bureau of Land Management lands are intermingled or adjacent, it is wise management policy to develop common access, provide protection or plan for other activities common to the two agencies, by agreement.

This is also the case with the National Park Service. Many National Parks are within the boundaries of National Forests. Memorandums of Understanding and cooperative agreements between these agencies facilitate the multiple use-sustained yield principle which is the guideline of forest management.

If a using agency's planned occupancy does not require control or segregation, they will not ordinarily request a withdrawal, rather a permit or other authorization.

Occasionally a withdrawal is requested and after analysis of the application, it is found that another authorizing instrument will satisfy the using agencies needs. The instrument that best satisfies those needs is then suggested as an alternative in the withdrawal application report issued by the Bureau of Land Management.

Acreage data by using agency, occupancy use and authorizing instrument on use of alternatives vs. withdrawal was not available from the Federal agencies. Consequently, the extent to which this occurs could not be determined.

2. Criteria and Rationale for Selecting Authorization Instruments

In order to understand why a controlling agency grants use of their land to another Federal agency, through a specific arrangement, it is necessary to define the scope of each authorizing instrument.

a. Withdrawals. In the present nomenclature of the Public Land Laws the terms withdrawal and reservation are used interchangeably; of these two the scope of the term withdrawal is the broader. A withdrawal can be either setting aside of land pending a reservation, a temporary removal of land from the operation of the public land laws pending a decision as to its disposition, or a step in the reservation process. A reservation implies immediate dedication of lands to a predetermined purpose, such as a military reservation or National Monument. A reservation must include a withdrawal, that is removal of the land from the operation of the general land laws as the initial step in the dedication of the lands to the predetermined purpose.

The withdrawal and reservation is created by congress either directly - by statute, or indirectly by authorizing the Executive branch to make withdrawal.

The Executive branch may in turn authorize the Secretary of Interior to make withdrawal. Revocations are accomplished through the same channels of authority when the lands are no longer needed by the withdrawing agency.

When a Federal agency makes application for a withdrawal of public land under the control of another Federal agency, there are certain regulatory steps in the process that are administered by the Bureau of Land Management. In reviewing withdrawal applications, a land report is made which considers several factors:

- (1) Purpose(s) for which the area is proposed to be withdrawn

- (2) Justification for proposal showing need, limitation of concurrent uses, and exclusive-nonexclusive occupancy use factors
- (3) Proposal's effect on public land laws
- (4) Existing and potential economic demand for land and resources
- (5) Alternatives such as Memorandum of Understanding, 44LD513, special use permit, etc.
- (6) Responsibilities and authorities of resource management, i. e., which agency shall manage what
- (7) Minimum acreage essential to meet withdrawal needs
- (8) Eliminate lands needed for purposes more essential than applicants.
- (9) Alternative sites
- (10) Develop management provisions to be incorporated if withdrawal is affected
- (11) Special considerations -- procedural or regulatory factors
 - (a) Over 5,000 acres requires an Act of Congress
 - (b) Classification for security reasons
 - (c) For military purposes general consider utilizing already existing military reservations
 - (d) For military purposes -- statutory applicability of Sections 1-3 Act of February 18, 1958 72 STAT.27
 - (e) For over 2,560 acres Director's office to be advised for review by House and Senate Interior and Interior and Insular Affairs Committees
 - (f) Segregation from mining laws in national forest -- consider adequacy of existing minerals data and reports or furnishing of some

- (g) Segregation from mineral leasing and material-mineral sales law -- Departmental policy can accomplish exclusion by administrative action rather than withdrawal

(12) Necessity of negotiation on any elements of the application.

If, after carefully reviewing all these factors, it is found that a withdrawal is the only applicable instrument to use, the Secretary of Interior receives such notification with recommendation for approval.

The basic difference between a withdrawal and any alternate use instrument is control. Under a withdrawal, control of the land passes to the using agency whereas in the case of all other use instruments control is retained by the original agency and the using agency merely administers the land.

When a using agency does not need control of the land for security reasons or for exclusive use or for a long period of time, authorization other than withdrawal is preferable and is usually requested or recommended.

b. Permit.^{31/} It is the policy of the Federal Government to permit, where practical, the beneficial use of public land for purposes not specifically provided for by existing law. Permits for special use, however, are not issued where the provisions of the law may be involved nor in cases where the use conflicts with Federal or state law.

Permits are revocable at any time, upon notice, if in the authorizing officer's judgment the lands should be devoted to another use or if the conditions of the permit have been breached. Permits contain stipulations to protect the land and natural resources and specify the area size and length of time in force, usually five years. The word "temporary" is the key factor in the usage of permits as authorizing instruments as there are substantial disadvantages involved in long-term or permanent use of real property on a permit basis.^{32/} Some of these disadvantages are indicated in Part 4 "Analysis of the Present System" under discussion of military and Other Federal Government uses.

c. Letters of Agreement and Memoranda of Understanding. These two instruments of land use authorization are less formal in concept and practice than the other instruments. A general feature of these two instruments is a statement of the sharing of responsibilities of land use management between the controlling and using agencies.

While use restrictions, length of tenure and conditions may be stated they are not a required portion of the documents. For example a permit is issued for a specific number of years and a specific use. The letter of agreement or Memorandum of Understanding may or may not do so.

The Forest Service uses the Memorandum of Understanding exclusively when dealing with other Federal agencies.

d. 44LD513. 44LD513 is a ruling which refers to a specific citation in a series of volumes issued by the Department of the Interior. LD stands for Land Decisions. It applies to the obtaining of rights-of-way by Federal agencies over unreserved, or withdrawn, or reserved public domain lands. The series includes policy precedent, important decisions of the department, solicitors' opinion, memoranda of instruction and the like.

The Federal Code of Regulations contains no provision for granting rights-of-way to Federal agencies.^{33/} The 44LD513 ruling provides a means for a Federal agency to protect improvements that it intends to place on the lands and to protect the use of the lands involved for the purpose applied for by that agency. In essence, this ruling functions as a withdrawal insofar as constructed improvements of the Federal Government are protected from encroachment even in the event the land is disposed of by the controlling agency.

Land under 44LD513 is subject to mining location and mineral leasing providing such activities do not interfere with the easement subsequent to its establishment. Such lands are also subject to disposal under the public land laws providing the patent includes the following:

"Excepting, however, from the conveyance the (name of structures) and all appurtenances thereto, constructed by the United States through, over, upon the land herein described, and the right of the United States, its officers, agents or employees to maintain, operate, repair, or improve the same so long as needed or used for or by the United States."^{34/}

In all cases where application for easement (right-of-way) is made under this ruling the requirements are as follows:

- (1) Definite location of land by survey
- (2) Statement that the use if necessary or required
- (3) Evidence that construction of improvements has been provided for and will be undertaken immediately.

The Land Office records the application and this immediately segregates the land from future use or disposal which would interfere with the proposed Government easement, providing there are no conflicts of record. No formal notification is required. That Land Office merely notifies the using agency of the serial number assigned and its recording is the agency's permission to occupy and to use the land, for the purposes given the lands applied for. When the agency no longer needs the land, it so notifies the Land Office referring to the serial number, and the easement is taken off the records. There is no time limit specified in these records.

C. Natural Resource Objectives

Section 10 lands are controlled by several agencies of the Federal Government. Many of these lands are intermingled or are situated throughout the nation in such a way as to often necessitate use and occupancy by other than the controlling agency. The Classification and Multiple Use Act outlines the objectives to be considered by the Bureau of Land Management in managing certain public lands. Two of these objectives are of primary importance: (1) efficient utilization of natural resources, and (2) maximizing multiple use potential. These objectives are similarly stated in the Sustained yield - Multiple use principles of the U. S. Forest Service.

In order to effect this responsibility over the public lands, the Federal agencies have developed regulations and policies to govern use of land under their jurisdiction by other Federal agencies. Various instruments are used which authorize and regulate such use.

The present system of dual use is based on each agency retaining control of its land by utilizing various instruments as alternatives to withdrawal. Time and budgetary restrictions on a detailed search of land use records prevented the various Federal agencies from reporting on the actual acreage involved. They were also unable to establish how much use by other agencies was accommodated under various authorizing instruments as an alternative to use of the withdrawal system. Reports in Public Land Statistics^{35/} in the last 10 years, however, show that withdrawals of public land are decreasing.

D. Operation of the Present System by Case Example

In order to determine the effectiveness of the present system in achieving multiple use and protection of the natural resources, several documented case histories are presented. While not all of the 13 occupancies of concern to this study are represented, those occupancy uses occurring most frequently and involving the most land are examined. The management policies highlighted by these cases appear to be representative of resource management in current practice.

1. Transportation Uses

The Forest Service and the Bureau of Land Management control inter-mixed public land in Montana, North Dakota and South Dakota. Both agencies control forest lands in this region. As part of their administrative functions they are involved in timber harvesting. Quite often the most direct route for hauling the timber out of their respective forest lands involves using the road system of the other agency. By so doing they can avoid excessive rights-of-way for logging roads, thereby minimizing the disruption of the timber resource.

a. Administrative Authority. The Forest Service and Bureau of Land Management may use public land not under their control by requesting authorization to do so from the agency controlling the land. Regulation governing users of the land have been established by each agency as a means of implementing their statutory authority to administer the public lands. These regulations may be found in the appropriate sections of the Code of Federal Regulations.

In accordance with the provisions of the Acts of February 1, 1905^{36/} and July 16, 1946,^{37/} respectively, the Forest Service and Bureau of Land Management have administrative authority over certain public lands. Both agencies, under these authorizing statutes, share similar responsibilities including timber harvesting. Each agency is authorized to draft the necessary regulations that will help aid in management and protection of natural resources. The Forest Service regulations are found in Title 36, Chapter II and the Bureau of Land Management regulations are under Title 43, Chapter II of the Code of Federal Regulations.

In the case of the Forest Service the regulations authorize them to allow use of their land by another Federal agency through the issuance of a Memorandum of Understanding. The Bureau of Land Management may use any of several authorizing documents including permits, agreements, memoranda of understanding and recording of rights-of-way under the provisions of 44LD513.

b. Administrative Performance. The Memorandum of Understanding is not limited to a specific format as is a permit. It is, therefore, considered a good document to use when establishing a general policy to be followed by agreement of both agencies. In this particular case, the Forest Service and Bureau of Land Management issued a general Memorandum of Agreement^{38/} of broad scope governing transportation occupancy use of each other's forest lands in Montana, North Dakota and South Dakota. The memorandum established authority for each agency and its licensees or permittees to use the other agency's access roads for removal of timber. Each specific road used, including new roads constructed, was covered by a separate Memorandum of

Understanding. Special conditions were set forth in these memoranda to assist in coordinating each agency's functions so as to provide maximum protection of the natural resources. In essence, dual use of road systems provided a means of efficiently removing harvested timber without the necessity of taking up more timber land than necessary for logging roads. At no time have the primary rights of the agency having jurisdiction of the land been curtailed or hampered by the administrative functions of the using agency. Timber removed from new road rights-of-way has been appraised by the Forest Service and subsequent disposal was made by the agency controlling the land. Maintenance and repair expenses as well as use fees have been shared on a pro rata use basis.

c. Summary. By agreements similar to the above, the Forest Service and Bureau of Land Management have been able to reduce the number of access roads through forest lands and at the same time have been able to more efficiently remove timber products from their lands. The only area where further improvements might be made is in management authority. It would appear that where two agencies have control of intermixed lands of the same type, one agency might more efficiently manage the resources. This would save the time and cost involved in paperwork requesting and authorizing use by the other agency.

2. Utility Transmission

The Bonneville Power Administration (BPA) constructs, operates and maintains electric transmission lines and access roads throughout the Pacific Northwest. To a great extent, the most efficient routing of these lines involves crossing National Forest lands in Forest Service Regions 1, 4 and 6. These rights-of-way may possibly damage the natural resources by reducing the timber producing area and marring scenic areas.

a. Administrative Authority. The Bonneville Power Administration is empowered by the Act of 20 August 1937^{39/} to transmit electric power in the Pacific Northwest. In areas where it must cross public land not under its jurisdiction, it requests authority to do so from the agency having jurisdiction over the land.

The Forest Service administers National Forest lands under the authority of the Act of February 1, 1905.^{40/} Further authority under the Act of March 4, 1911^{41/} allows it to grant easements or rights-of-way for communication and transmission of electric power.

Implementation of these statutes is governed by the regulations set forth in Title 36, Chapter II of the Code of Federal Regulations. Approval for rights-of-way to Federal agencies is granted through issuance of a Memorandum of Understanding which details the conditions to be met and constitutes the authorization of a right-of-way to the using agency.

b. Administrative Performance. Because the BPA would need several rights-of-way for electric transmission through Forest Regions 1, 4, and 6, the Forest Service and BPA issued a general Memorandum of Understanding under date of July 19, 1967. This memorandum served as a policy guide for all utility occupancy use of forest land by the BPA. Subsidiary Memoranda of Understanding were subsequently issued governing each separate transmission line. Special conditions to be met were outlined in the understanding. Their purpose was to prevent as much damage to the forest resources as was feasible. These conditions provided that the Forest Service would be involved in the earliest stages of routing and location of the lines. Construction damage was kept to a minimum by flying materials and equipment in by helicopter. Horse logging and use of wide track vehicles reduced damage to the forest floor. Routing of the line to avoid scenic areas helped to preserve the natural beauty of the forest. Rights-of-way varied in width and were zigzagged in order to be less conspicuous and to reduce timber production area loss. Safety and fire prevention plans were provided to reduce the threat of forest fires. As a final aid to coordinate efforts to provide occupancy use for the power resource and preserve the timber and scenic resources, annual meetings are held between the two agencies. Problem areas are reviewed and improved methods are delineated.

c. Summary. The detailed management guideline provided in the general and subsidiary Memoranda of Understanding between the Forest Service and Bonneville Power Administration has resulted in development of the power resource without unduly hampering forest resources. In actual practice, it was found that the right-of-way clearings provided better forage for wildlife than the timbered area had previously provided. In addition, Christmas tree production was made possible. Also, some of the access roads to the lines could be used by hunters and sightseers, providing for multiple use which previously did not exist.

3. Water Transmission

On May 21, 1959, the Corps of Engineers made application to the Bureau of Land Management for withdrawal of approximately 120 acres of land for use by the Atomic Energy Commission. The land was required for construction by the AEC of a water plant to be used in connection with their facility at Salton Sea Test Base, California. The Bureau of Land Management assigned Serial No. LA-0164245 to this application. Notice of the proposed withdrawal was published in the Federal Register on April 27, 1961.

In February 1962, the Bureau of Land Management advised the Corps of Engineers that field survey revealed this water plant was not located on Bureau of Land Management land. It was determined that instead a raw water pipeline and access road had been constructed by the AEC sometime in 1959. Effective May 2, 1962, the Corps of Engineers requested a right-of-way, for benefit of the AEC, to cover the already existing water line and access road. The Bureau of Land Management further researched the land records and found that the land in question had been under withdrawal by the Bureau of Reclamation since October 19, 1920 (under authority of the Act of June 17, 1902, 32 STAT. 388). In addition, the Imperial Valley Irrigation District had a right-of-way (issued July 1, 1937) for the San Felipe Wash Diversion Canal. The Bureau of Land Management contacted these two agencies requesting approval for the AEC right-of-way. Approval was granted by both agencies providing the AEC right-of-way was secondary to their primary right-of-way.

Effective May 28, 1962, the withdrawal application was cancelled and the AEC right-of-way application R-01008 was approved and recorded under the provisions of 44LD513 on July 25, 1962.

a. Administrative Authority. In order to protect constructed improvements of the United States, the constructing agency must request a right-of-way be filed by the Bureau of Land Management in accordance with the provisions of 44LD513. In addition, the regulations in Title 43, Chapter II of the CRF provide for review of all withdrawal applications by the Bureau of Land Management.

The Bureau of Land Management under the Act of July 16, 1946^{42/} has the authority to manage certain public lands and to keep the land status records of the public domain.

b. Administrative Performance. When the Bureau of Land Management receives an application withdrawal or right-of-way over public land, it must check the land records to determine the status of the land in question. Any conflict of use must be reviewed with respect to need priority. If no problems exist or are foreseen, the Bureau grants approval for the right-of-way by letter noting the number of recording (under 44LD513). In the case of withdrawals, recommendation is made to the Secretary of Interior. Regulations on reviewing withdrawals were discussed previously in this chapter. Recording under 44LD513 excepts the land in the right-of-way from future disposal under the public land laws and constitutes the authorization to the requesting agency that it may commence construction. This procedure was followed in this particular case except that the AEC right-of-way was granted after the fact.

c. Summary. In the above case, three different agencies of the Federal Government benefited by occupancy use of public land for water transmission purposes. While there was no damage to the natural resource, a problem of maintaining up-to-date land status records is noted by evidence of the fact that the AEC right-of-way was recorded after the fact. It appears that more efficient checking of the public land records might prevent an occurrence which could possibly lead to a conflict in resource use and management in future cases.

4. Reservoir Flowage

The Army Corps of Engineers develops water resource projects which lie within, or partly within, units of the National Forest system. Each project required entry by the Corps in Forest Service land. In order to facilitate the development and management of these projects and the recreation areas created by them the Corps and the Forest Service have established a joint management policy.

a. Administrative Authority. Both agencies under Public Law 804^{43/} are authorized to interchange National Forest lands and lands controlled by the military departments within or adjacent to National Forests to facilitate land management and provide maximum use for authorized purposes.

Under the provisions of the Flood Control Act of 1944, ^{44/} the Secretary of the Army is authorized to provide public access to and recreational use of reservoirs and other water controlled projects constructed by the Corps of Engineers.

The Multiple-Use Sustained Yield Act ^{45/} authorizes the Secretary of Agriculture (through the Forest Service) to provide for the use and management of the National Forest under multiple-use principles and practices, including the development and administration of outdoor recreation.

b. Administrative Performance. In order to facilitate achievement of the above authorizations and responsibilities the Secretaries of the Army and Agriculture established a general Memorandum of Agreement on August 13, 1964. This agreement superseded a similar one issued December 16, 1946. The agreement concerned the management of land and water resources at water development projects of the Corps of Engineers located within or partly within the National Forest. This overall policy provides for cooperation between the agencies from preauthorization and planning stages through the entire development process.

The Corps and Forest Service issued a Memorandum of Understanding which allowed the Corps entry to forest lands necessary for the project. Planning was done with the objective of greatest public benefit in recreation, timber, water, power, wildlife and fish propagation and preservation of scenic and esthetic values. Water boundaries and jurisdictions were determined with the Corps responsible for recreational areas within the immediate location of the project. The Corps relocated Forest Service structures and facilities at their expense. Since under such agreements management of the land is left under the agency which can best manage the resources, the Forest Service retained control. Timber removal and sale was supervised by the Forest Service.

Eventually the Corps transferred to the Forest Service all land not immediately within the dam or reservoir area and the Forest Service transferred to the Corps the land in the immediate zone of influence of the project.

Various Memoranda of Understanding were issued specific to each project to facilitate development.

c. Summary. In general, such projects have created new recreational facilities and have provided better resource management of water, power, and fish propagation. In addition, the Forest Service has quite often gained more land than it lost in the interchange process.

5. Education, Science and Research

The Atomic Energy Commission (AEC) has a contractor performing water research in Nevada. The site determined to be best suited to this purpose was located on Bureau of Land Management land near the Tonopah Test Range in Nevada. Initially the AEC requested withdrawal of 80 acres; however, the Bureau of Land Management granted use over 10 acres under a Special Land Use Permit.

a. Administrative Authority. For short-term usage the Bureau of Land Management Title 43 regulations specify Special Land Use Permits to be issued a using agency. If Federal Government structures are to be constructed, the provisions of 44LD513 require they be recorded on the land records so that future disposal will except that portion improved by the Government. When a Federal agency no longer needs use of an improved location, they notify the Bureau of Land Management and the 44LD513 notation is removed from record.

The Bureau of Land Management under the Act of July 16, 1946 (5 USC 1336-16) is authorized to manage certain public lands.

b. Administrative Performance. The Atomic Energy Commission has a civilian contractor performing water table research and its relation to underground nuclear testing in Nevada. In January of 1969, the AEC made application for some Bureau of Land Management land to be used in these tests. Initially they requested 80 acres; however, it was determined that they only required 10 acres to drill three holes. The Bureau of Land Management issued a Special Land Use Permit for two years' duration with special conditions that at termination of the permit the land would be restored to original condition. Grazing use of the land was to remain primary and the Atomic Energy Commission would supply the Bureau with a report on findings of water, its quality, location and condition. The test holes constructed were protected by recording them under the provisions of 44LD513.

c. Summary. The primary resource of grazing was not disturbed. In addition the Bureau gained knowledge of the location of a water table 25 feet under surface. A possible new resource was gained by allowing another Federal agency to use the land.

6. Military Use

Military use of the Wichita Mountains Wildlife Refuge (and predecessor agency Wichita National Forest and Game Preserve) predates many years World War II when units maneuvered within the area on an individual request basis. World War II saw a massive increase in military use formalized by Special Use Permits covering specific areas and uses.

In the early 1950's Fort Sill, Oklahoma, expanded. A major effort was made to acquire by transfer some 10,700 acres of the Refuge in 1955. Congressional hearings settled the controversy by a compromise solution. A 10-year agreement was signed in 1957 which allowed certain areas and uses of the Refuge by the military. In addition a buffer zone of 3,600 acres was established on the southern boundary of the Refuge and adjacent to Fort Sill's newly acquired lands.

a. Administrative Authority. The Code of Federal Regulations, Title 50, Chapter IV, specifies conditions under which permits or agreements can be granted on refuge land to other agencies or individuals.

The Fish and Wildlife Act of August 8, 1956^{46/} declares the value of fish and wildlife resource and gives authority to the United States Fish and Wildlife Service to manage and protect these resources. Under the Act of September 28, 1962^{47/} authority is given to make secondary use

of fish and wildlife areas for recreational purposes provided the use does not interfere with the primary purposes.

b. Administrative Performance. When Fort Sill commenced expansion in the early 1950's, a controversy resulted with the Wichita Refuge. Fort Sill had acquired private land adjacent to the Refuge's southern boundary. They additionally desired to acquire by transfer 10,700 acres on the boundary. Congressional hearings subcommittee on Real Estate and Military Construction of the Committee on Armed Services, United States Senate, 84th Congress, 1st Session on S 1765 (HR6829) GPO 1955 aired the entire controversy. A compromise solution was reached and a 10-year Memorandum of Agreement was signed between the Department of the Army and the United States Fish and Wildlife Service September 26, 1957. The agreement replaced Special Use Permit No. Wichita--238.

Essentially the provisions allow use of airspace for helicopter training, right to maneuver within certain portions of the Refuge and to fire from the refuge into impact areas on Fort Sill. The impact area is a 3,600-acre zone within Fort Sill limits in which no public is permitted. In return Fort Sill assists the Refuge with road maintenance, range fires, and posts the buffer zone to exclude refuge visitors. Wildlife migration is not restricted even within the buffer zone and notice is published of firing schedules. Refuge campgrounds at Pecan and Elk Springs were relocated by and at Army expense.

c. Summary. The use of the Refuge by the Army does somewhat hamper use by Refuge visitors. However, it must be pointed out that recreational uses in refuges are of secondary importance. The wildlife habitat had not been damaged. It is conceivable that Refuge visitors could create as much damage to the Refuge as the Army might. The difference being that by agreement the Army restores the land at their expense rather than at the expense of the Refuge. Currently another 10-year agreement has been signed with fewer privileges to Fort Sill.

E. Effectiveness of Present System

Under the present management system, the Federal agencies are more and more utilizing alternative instruments to withdrawal. These alternative agreements and understandings allow the agency to retain control and management over the natural resources and primary occupancy use of the land. At the same time, by stipulating special conditions which protect the natural resources, other agencies may also benefit by satisfying their occupancy use needs.

Withdrawals do not fulfill the objectives of multiple use because they are most often initiated for an exclusive use. In addition, the withdrawing agency may have primary functions that differ from those of the controlling agency. For this reason natural resource protection and enhancement may become secondary.

Each of the case histories examined pointed out that this system is working effectively. In many areas, such as reservoir use and research use, the use of land by other than the controlling agency has in fact enhanced the natural resource base.

III. NATURAL AREAS

Assessment of future need of government land for natural areas is hampered by the lack of conclusive information on the total land area presently devoted to this use. This in turn is due to the disparity in policy of agencies involved in conservation and ecological research. Before accurate evaluation of current land use efficiency can be attempted, the following must be accomplished: 1) uniformity of agencies' policies regarding program objectives, priorities, scope; ecological classifications; requirements of land, facilities and management; 2) standardized inventory of all lands, public and private, currently used as natural areas.

In the interest of contributing toward a basis for consistent policy, three levels of a natural area system will be examined in respect to objectives, size and number of sites, criteria for site selection, administration, and user control and facilities. Congruent with this will be an evaluation of the suitability of land now under Federal control for inclusion into a natural area system.

The basic concepts of the three levels of national natural area systems were derived from the objectives of natural areas as set forth in the Federal Committee on Natural Areas and from information gained in interviews with Dr. Mildred Mathias 48/, Horace Albright 49/, and other leading conservationists. The bulk of the criteria for site selection was gained from publications of the Society of American Foresters. Interviews with agency personnel and study of manuals and administrative directives provided an overview of Federal agency policies.

A. Definition of Natural Areas

A natural area is an area where natural processes are allowed to predominate and which is preserved for the primary purposes of research and education. These areas may include: (a) typical or unusual fauna and/or flora types, associations, or other biotic phenomena, and (b) characteristic or outstanding geologic, pedologic, hydrologic, or aquatic features and processes. 50/ The specific objectives of the natural area system according to the Federal Committee of Research on Natural Areas are (1) to preserve examples of all significant natural ecosystems, (2) to provide educational and research areas for scientists and educators to study the ecology and successional trends of the natural environment, and (3) to serve as a gene pool for rare and endangered species. Timber cutting, grazing, recreation, mining or any other activity which artificially disturbs or disrupts the geology, atmosphere, water, soil, native plant or animal communities is prohibited.

Interpretation of this definition varies widely between Federal agencies, as seen in the discussion of the Analysis of the Present System, in Chapter XVI of Part 5.

The agencies which administer natural areas, as well as the Federal Committee on Research Natural Areas, place categories of natural features within the scope of natural areas. ^{51/} These classifications have been made even though there are only two vegetative classifications accepted as valid for the U.S. These are the Kuchler Classification for grassland types, and the Society of American Foresters Classification (SAF) for forest types. The Directory of Federal Research Natural Areas contains adequate classifications of soil and geologic features, but it contains only one classification for all mammals and one for all birds. This is unquestionably insufficient to determine if there is adequate representation of either of these families. Federal agency classifications conflict with those listed by the Federal Committee on Research Natural Areas. One example is the separate classification Glacial made by the National Park Service as compared with the Committee's inclusion of a majority of glacial features in the Aquatic classification.

Another problem involves the validity of the inclusion of a number of natural features as within the natural area definition. Specifically, the inclusion of mineralogic and paleontologic sites is open to criticism as they are not representative of any of the processes set out in the definition.

Both in their use of previous classification schemes and under current adoption of the Federal Committee's system, Federal agencies appear to have merely a description, and not an indication of policy, regarding content of natural areas. Some species and features are listed simply because they exist and can be identified, rather than as an indication of their rarity or intrinsic scientific interest. Conversely, many known desirable types may not have been classified.

Such an approach lacks the scientific validity to properly accommodate scientific and conservation interests, and defeats optimum land use. In turn, inefficient application of current natural area lands may result in unnecessary acquisition - and further misapplication - of additional lands.

Clearly a decision of emphasis must be made and cogent criteria and priorities developed, before an adequate natural area program can be developed. Suggestions relevant to these problems will be discussed in the descriptions of the three natural area systems and under the section on site selection.

B. Character of Natural Area Systems

The objectives of a natural area system can be ranked as 1) the maintenance of a gene pool for rare and endangered species, 2) the preservation of all the significant ecosystems in the United States, and 3) the provision of the opportunity for study and research of these ecosystems in their natural state. These objectives correspond to three potential levels of natural area systems; minimum, medium or maximum. The emphasis and extent to which these objectives are to be accomplished will determine the level of system to be selected. The policy expressed in this choice will in turn dictate the process of site selection and specific management policies.

These systems can be grouped into either of two areas of emphasis, i. e., the preservation of individual species and natural features or the development of ecosystems. The minimum system would be based on the former, while the medium and maximum systems would be developed on the ecosystem concept. This dichotomy is based on the relative needs and opportunity for conservation and research, with resource availability the prime determinant of priority and therefore of choice of a particular level of natural area system.

The minimum system, smallest in scope, would serve solely for the preservation of rare or endangered species or natural features, and thus be developed on an individual site basis. Any education or research opportunities would be contingent on overall aversion of threat and thus only incidental to a specific site. This system is indicated under conditions of greatest constraint from lack of resources.

The medium and maximum systems imply more abundant resource conditions. Freed from constraint to accomplish only what is absolutely critical, these systems afford programs larger and much more flexible in scope. While conservation needs are still met, the ecosystem basis permits optimum opportunity and benefit regarding research into plant, animal, environmental relationships.

The maximum system is essentially an expansion of the medium system, offering researchers greater variety, accessibility, and facilities for the storage of research equipment, etc.

Total land area required by each system is not entirely correlative to the scope of the system as described, except that the maximum, of course, will require more land than the medium. Quantification is difficult in considering the individual (minimum) versus the ecosystem group. Although an ecosystem would generally require more space than

an individual species or natural feature, there may be fewer ecosystems than individual natural area sites.

C. The Three Natural Area Systems

1. The Minimum System

The main objective of the minimum system would be the preservation (gene pool) of all major species and natural features types. Each site would represent one such type. Functions incidental to a particular site might include research relating to that species or feature (for an objective such as its optimum preservation) and education regarding its distinctive characteristics.

As the species or feature selected would serve as a representative sample of its type, its site could be determined by an expert in that area. In a process similar to that of the Natural Lands and Water Resource Committee, this expert would be allowed up to a year, with expenses to select potential sites. Final determination between these sites would be made after review by all participating specialists.

Administration of this system might best be accomplished by a Federal Bureau of Natural Areas working in conjunction with the particular Federal agency administering the land in the case of public lands, and private conservancy groups, or universities in the case of private or state lands. Many of the private groups are already working toward the objectives of a minimum system. Such a relationship would insure cooperation, enhance management efficiency and facilitate dissemination of information. An additional benefit would be the opportunity for inventory and possible incorporation of preservation lands already maintained by these private conservancy groups.

Individual site management for a minimum system is geared to the preservation of the sample represented and containment of both natural and manmade threats (e.g., timber cutting, grazing, mining). In some cases a certain threat may actually be vital to the preservation of a species. Fire-adapted chaparral, for instance, needs to undergo the effects of fire about once every ten years; the usual policy to prevent fire would be harmful to this species.

As research is not a main purpose in this system, access routes and research equipment storage can be kept to a minimum and no climatic records need be kept. Management problems would, therefore, be minimal regarding maintenance of individual sites. But the sites, though small, may number in the hundreds. A management crew would be needed to check the condition of the species, noting evidence of

significant human contamination and taking measures against it. This could best be done, in the case of public lands, by the Federal agency administering the land. Basic control of human use should employ a contract or agreement with the interested party, authorizing use and providing for liquidation of any damages resulting from this use.

2. The Medium System

The medium system emphasizes the preservation of all significant ecosystems, including samples of individual species only when they are not represented within an ecosystem. While research would not be the primary objective of this system, research possibilities would be enhanced by the opportunity to investigate floral, faunal and environmental relationships. These possibilities stem from the inclusion in this system of larger areas of land with multiple species representation.

Further, because of the unlikelihood of future availability of large areas of unspoiled land for natural area use, two samples of the same ecosystem could be achieved. Such duplication would maintain representation of the ecosystem in the event of threat to an individual site. The same duplication should also be provided for samples of natural features.

It should be noted that this system would not necessarily be of greater total land area than the minimum system. While individual sites would be larger in the medium system, these sites would be far less numerous since the number of ecosystems is far less than the number of individual species. Size differential between the three systems is difficult to compute - even in consideration of the above duplication - because of problems in determining the exact area per site required either by ecosystems or by individual species.

Where certain migratory species are to be represented, provision should be made for the inclusion of specific routes of migration when such routes are of limited length (e.g., the pattern of deer or elk migration from mountain to valleys as the seasons change). To include the totality of some routes (e.g., that of the wide-ranging caribou) would result in the inclusion of an area too large to manage effectively. In such a case size acts as a constraint: This is aside from the problem of opportunity cost, which is discussed in Chapter XVI.

The selection process would be essentially the same as for the minimum system except that the interrelational nature of ecosystems demands selection by a team of experts rather than by individuals. In this way consideration of the specialists would include all aspects of the ecosystem.

Further, the administrator of the natural area would determine that there are school curricula designed to utilize the area. Upon failure of any of the above conditions the subsidy would be withdrawn and the land subject to condemnation by the Government for inclusion in the Federal Natural Area system. There would be an increase in the size of this system over that of the medium system. By definition there would be more sites represented in the maximum system. When consideration is given to the potential greater number of sites required to preserve individual species, however, it is possible that the sum of such sites needed to make up a minimum system would total in excess of the acreage needed for maximum system.

The site selection process would be similar to that of the medium system, with the further qualification that once the potential sites are selected for a particular ecosystem, those with the widest climatic variation compatible with features of that ecosystem would be given maximum consideration. ^{52/} This is opposed to the minimum system where the most representative example of an ecosystem was the most desirable selection.

Management of the areas in the maximum system must be geared to provide the potential users, i.e., researchers and educators, with the maximum in usable facilities. Thus motorized access to the general location would be available in all site areas. Further, there should be storage facilities for the storage of research equipment during off-season. In addition, there should be facilities at each area equipped with meteorological facilities and climatic data should be kept at each area. This data should be readily available to all researchers.

Prior to any research, investigation should be made into the responsibility of the sponsor, of the research, the type of research to be done, and the length of time necessary for completion. A report of all results should be required from the researcher upon completion of the research project with the stipulation that this material may be given to subsequent researchers. Further, the controlling agency should research each area selected to determine if it has been researched before. If so, this material would be catalogued and given to all those who research the area.

As in the medium system, there would be a contractual arrangement between the controlling agency and the user of the area. This contract would specify the activities which are permitted with reasonable certainty what activities would constitute a breach of the contract. Because damage may be difficult to value, a liquidated damage clause should be included.

D. Criteria For Formation of New Policy

In general there are three levels of criteria: (1) for choosing between the three natural area systems; (2) for determining priority among natural types; (3) for selecting sites. If there were an existing over-all policy regarding natural areas, its emphasis and scope would be manifest in its choice of system, and the character of the system would influence type priority and site selection decisions. There is, however, no such consistent policy from which to derive these decisions. Therefore this procedure must initially be reversed-type priority and site selection standards will ultimately influence choice of system.

Once temporary guidelines for these two elements are established, evaluation can be made in that light regarding current efficacy of natural area land use. This in turn will be one of several determinants in the selection of a natural area system.

In view of this reversal of the usual determination sequence, overall system selection will be discussed last.

1. Ranking of Natural Types

Once a comprehensive classification scheme, comprising all species and natural feature types indigenous to the U.S., has been established, these types must be ranked in priority of consideration.

The first concern is that of immediate threat. Those general natural feature types (as distinguished from specific localities) under threat of imminent destruction or damage rate first priority. Threat must be measured in terms of intrinsic or developed rarity, potential for contamination, and occurrence during a crucial stage in the lifecycle of the type.

Some types are truly rare, that is, occurring infrequently even under optimum conditions. Others become rare as contamination reduces the number of virgin samples. Contamination itself may be due to industrial-urban pollution, as of water and air, or direct human meddling -- as in the case of hunters, campers, collectors and wildflower enthusiasts. Such contamination may be far-reaching if it occurs during a type's climax state of succession.

Present uniqueness, optimum typification and intrinsic scientific interest are other aspects to be considered. Lack of consistent policy has produced fragments of ecosystems and plant communities. Adequacy of present representation must be investigated and fragments made whole

whenever feasible. Emphasis should also be placed on rating species as to how well each typifies its general category, in case other considerations might force exclusion of some species as trivial or redundant. It may also be found that certain species are especially of value in some element of basic research of far-reaching human implications such as photosynthesis and radiological mutation.

2. Individual Site Selection

After type priorities have been established, sites may be selected in accordance with the process set forth for each system.

Size is one criterion needing study. Few guidelines have been set down as to the minimum area required to support a type, or even its component species. The Society of American Foresters recommends a minimum of 500 acres for forest sites unless unusual circumstances (such as special buffer zones) offer maximum protection. Where non-forest vegetation is involved Dr. Mathias (of the NLWRC) suggests 1,000 acres or more for grasslands and between 500 and 1,000 acres when shrubs or small trees are concerned. Both these estimates are geared to the varying susceptibility of these vegetative types to encroachment by more aggressive species and to damage by insects and fire, allowing an amount of vegetation that will provide an adequate basis for study and comparison.

The remainder of the individual site criteria are listed in the order of their importance. All are phrased so that an affirmative answer evidences a more suitable site for a natural area.

- a. Is the natural condition of the type good in terms of health and age of the fauna, flora, etc.? Has there been a lack of human contamination?
- b. Is there good accessibility in terms of nearness to possible researchers, educators and educational institutions? Is there good access to the general location of the site, with limited access to the site itself? (This latter factor is also linked to ease of protection.)
- c. Is there a lack of local destructive threats, i. e., pollution, large population centers? Is there an absence of future plans for this area which would place the controlling agency under pressure to withdraw the natural area classification? Is this area easy to protect?

- d. Are there adjacent usable areas under protection that would provide an alternative source if the initial area comes under threat or is destroyed?
- e. Are there usable structures and facilities in the area?
- f. Does the surrounding area, or the site itself, have a history of research so that data regarding the area is easily obtainable?
- g. Would use of this site as a natural area result in the least impact of any alternative site, on other possible uses of the site?

3. Selection of a Natural Area System

Selection of a natural area system may be based on information resulting from the tentative type ranking and site selection criteria described above. The index of efficacy of current natural area use derived therefrom must in turn be compared to the following: (a) extent of additional public lands not presently in use for this purpose; (b) relative availability of lands under jurisdiction of private interests not involved with overall natural area objectives; (c) opportunity costs in terms of acquisition and modification for natural area use. The first point is discussed in Section E, following. The second point includes the utilization of private lands, lands near universities and some state lands as discussed in the section on the Three Natural Area Systems above. The latter point is addressed in Chapter XVI of Part 5 of this report. Briefly it may be stated that difficulty in obtaining land from other jurisdictions, combined with excessive acquisition and development costs, might result in reduction of scope of the overall natural area program. In other words, once the present system has been evaluated and any additional land needs for each of the three systems have been postulated, impact of availability and cost may be a final determinant in choice of system.

E. Acreage in Natural Areas in the United States

In order to assess any Federal program designed to enhance or supplement a nationwide Natural Area system, it is necessary to determine the amount of acreage presently devoted to natural areas in the United States under all ownerships, be they Federal, State or private.

The United States Government established the Committee on Research Natural Areas in February 1966. This Committee's objective was to inventory natural areas established on Federal lands. As of 1968 they have published a directory, which inventories a total of 1,275,000 acres presently designated as natural areas.

There are many other public and private groups who have taken steps to preserve natural areas. These groups include states, universities and colleges, the Nature Conservancy, National Audubon Society, the Society of American Foresters, and American Society of Range Management. At various times, directories and catalogs of natural areas have been published by these and other groups; however, at present there is no published inventory of natural areas under all ownerships in the United States.

1. Natural Areas Established on Section 10 Lands
From 1958 to 1967

Prior to 1966 very few Federal agencies actively participated in programs for the preservation of natural areas. With the impetus provided by the Federal Committee on Research Natural Areas, however, many Federal agencies now have natural areas set aside. In 1967 the Bureau of Land Management proposed natural areas encompassing better than 700,000 acres. The National Park Service reports 106,110 acres in natural areas as of 1968. The Forest Service reported a total of 3,355 acres in natural areas for the period 1959 through 1967; however, they now have a total of 81,844 acres as reported by the Federal Committee on Research Natural Areas. Other agencies such as the Tennessee Valley Authority and the Atomic Energy Commission (AEC) have also set up natural areas. In 1967 the AEC established a reserve to protect 16,000 acres of western grassland in Richland, Washington, because the variety represented was not found elsewhere.

Appendix Tables D-1 through D-8 list Section 10 acreage in natural areas, by type, for the period 1958 to 1967. Table XIV-7 below summarizes the acreage in natural areas by agency by type exclusive of the acreage reported by AEC and the Agricultural Research Service noted above. The Bureau of Sport Fisheries and Wildlife (BSFW) reports seven classifications: Aquatic, Forest, Eastern and Central Grasslands, Western Grasslands, Paleontologic, Other Vegetative Types and Zoologic. Aquatic natural areas were first set aside by the BSFW in 1960. As of 1967 the acreage doubled and represented 5 percent of the total BSFW natural areas.

Forest type natural areas have increased from 19,254 acres in 1959 to 28,347 acres in 1967. This constituted nearly 55 percent of the total BSFW natural areas in 1967. Central and Eastern Grasslands areas did not increase until 1966, then by 1967 they increased to eight times the original holdings.

Excepting the 16,000 acres reported by the AEC in 1967, Western Grasslands constituted a stable 10,000 + acreage through 1967. It is interesting to note that in terms of total acreage in BSWF natural areas, the emphasis in Western Grassland representation has shifted from nearly 80 percent of the total acreage in 1958 to only 20 percent of the total in 1967.

Zoologic type areas were not represented until 1966, and other vegetative types and Paleontologic types combined have only represented between 4 and 7 percent of the total BSWF natural areas during the 10 year period 1958 to 1967.

As indicated in Table XIV-7, the Bureau of Land Management acreage was in a proposed stage in 1967. It is interesting to note the high representation of the Geomorphologic type.

Table XIV-7. Summary of Section 10 acreage in natural areas, by agency and type.

Type	Agency						Total
	Bureau of Sport Fisheries and Wildlife ^a	National Park Service ^b	Atomic Energy Commission ^a	Agricultural Research Service ^a	Forest Service ^a	Bureau of Land Management ^c	
Aquatic	2,646	7,140			463	1,800	12,049
Forest	28,347	32,400		400	2,892	55,410	119,449
Central and Eastern Grassland	5,958					1,136	7,094
Western Grassland	10,422		16,000			23,480	49,902
Paleontologic	1,340	7,200				11,038	19,578
Other Vegetative Types	587					21,610	22,197
Zoologic	2,407					33,253	35,660
Glacial		48,240					48,240
Geologic		11,130					11,130
Geomorphologic						564,568	564,568
Total	51,707	106,110	16,000	400	3,355	712,295	889,867

^a As of 1967.
^b As of 1968.
^c Proposed as of 1967.

Source: Federal Agencies as supplied through the Public Land Law Review Commission.

The total acreage here derived on Federal agencies falls short of that reported by the Federal Committee on Natural Areas, however, it must be remembered that many new Natural Areas were designated in 1968 that were not included in the Federal agency reports received by this study. One factor is very evident. Aquatic, Central & Eastern Grasslands, and Other Vegetative Types appear to have very little acreage. In contrast the Bureau of Land Management proposed more than 500,000 acres in Geomorphologic type areas. This may indicate disagreement on classification, or potential for imbalance of type representation. Before additional land needs can be projected, it will be necessary to establish standard criteria for type classification as well as performance of a complete survey of all natural areas under all ownerships in the United States.

F. Assessment of Additional Acreage Required for a Natural Area System

As shown in the previous discussion, there is no agreement on the total acreage of land presently under natural area designation. This is due to incomplete inventory based on inconsistent criteria. One curious manifestation of this is the Imurk Lava Beds; designated at 130,000 acres according to the Directory of the Committee on Research Natural Areas, this one site comprises more than one-tenth of the present total natural area acreage. Either this feature is overrepresented or others are grossly underrepresented. The only conclusion that can be reached is that the present figure of up to a million acres is not a valid indicator of the amount of land in the present system. Before additional land needs can be projected, qualified researchers equipped with the criteria discussed earlier must survey existing sites and evaluate the adequacy of their present use.

A second prerequisite is determination of the minimum area required for maintenance of each ecosystem and species in a natural state. Until this is achieved, total acreage differences between the three systems cannot be computed.

Some guidelines have been drawn, however, in respect to certain types. The Society of American Foresters specifies a 500-acre minimum for forest types to assure minimal contamination and allow for some (forest) research. For similar objectives the NLWRC posts an absolute minimum of 1,000 acres for individual grasslands sites. This estimate reflects the advantages of a buffer zone of vegetation and isolation from population centers. No similar standards have been attempted for natural feature types (e.g., soils, aquatic features, etc.)

Establishment of acreage specifications for all types is hindered to some extent by the lack of information on extent of existing areas representing individual species, ecosystems, or natural feature types. Reduced availability of appropriate land may result in diminution of eventual acreage standards.

Until potential sites are known it is impossible to assess acreage required to fulfill respective natural area system objectives. A very limited idea regarding present land need may be derived from the fact that 64 of the recognized forest types and 30 grassland types, currently unrepresented, would require approximately 32,000 and 30,000 additional acres respectively, based on the specifications above.

I. Section 10 Lands

The impact of natural area needs on Section 10 lands cannot be evaluated in the absence of any consensus as to the type of land to be incorporated into a natural area system, much less where such land may be located. Thus there are three things that must be done before this question can be answered. First there must be an inventory of all private natural area holdings and an accurate description of each. Such sites, if incorporated into the system, would very likely eliminate a large part of the need to evaluate Section 10 lands in terms of potential sites for specific ecosystems, or individual species. Secondly, and this is assumed in all of the above systems, there must be a study conducted to determine what in fact are the significant natural ecosystems of the United States. Thirdly, an evaluation is needed of Section 10 lands in terms of the likelihood of such lands serving as natural area sites, e.g., what systems are represented by a certain tract, what uses are presently being made of such area and what uses have been made in the past. Further, it must be known what plans, if any, are being made for such area by a Federal agency and the effect of these plans on the natural state of the land. Certain things, however, may be said with some conviction.

The majority of unrepresented types are Eastern in location and there is a minimum of Section 10 lands in the East. To the extent that the aquatic classification is unrepresented, Section 10 coastline areas might be considered. For example, the Camp Pendleton Marine Base in California encompasses some 20 miles of virgin coastline, much of which might conceivably be set aside for natural area purposes.

2. Extent to Which National Parks, Wilderness Areas,
and Other Appropriate Lands Could Be Used as
Natural Areas

Lands within National Parks have retained their natural character sufficiently to be very likely candidates as natural areas. Administrative policies of the National Park Service, as reflected in its Manual, emphasize natural succession of the flora and fauna, as opposed to environmental manipulation to preserve isolated species. Moreover, the major portion of National Park acreage is not heavily travelled and this land thus remains in a very primitive state.

National Parks, then, are almost ideal as general locations since they (a) allow access, (b) have large areas of relatively undisturbed vegetation, and (c) have suitable guidelines both for management of natural areas and construction of additional access to sites. Further, there may be storage facilities available for research equipment during off-season and at least basic local climatic records to aid the researcher.

Wilderness areas have certain limitations. First, they are by definition inaccessible. The Wilderness Act keeps motorized equipment to a minimum and administering agencies resist establishment of new lines or transportation to the areas.

The second and more fundamental problem involves the generally high elevation and climatic severity characterizing some of these areas. Conditions inherent to high elevation restrict the number of flora and fauna that can exist there. Even at lower elevations, climatic severity may inhibit successional trends. There are, however, some wilderness areas at lower elevations (especially in Northern California) which might be utilized as natural areas.

Inaccessibility and extreme weather conditions nonetheless contribute to the optimum in virgin samples. Thus, long untouched by human contamination, the bulk of the wilderness areas may yield very representative sites for a natural area system.

Wildlife refuges, National Forests and National Monuments (e.g., Death Valley and Joshua Tree) may offer some suitable areas. Other sites might be located on Government land along coastlines, such as marshland that may surround naval shipyards or the isolated, rugged islands supporting Coast Guard stations (e.g., Santa Cruz Island, off-shore from Ventura, California). Consideration of such sources should be based on the extent to which Government activities have caused commercialization or industrialization of the general area and the effect such buildup may have had on the natural relationships of the local flora and fauna.

Footnotes

1. Paul W. Gates, History of Public Land Law Development, written for the Public Land Law Review Commission (Washington, D. C., 1968).
2. Lewis H. Haney, "Congressional History of Railways in the United States to 1850," Bulletin of the University of Wisconsin, No. 211 (Madison, Wisconsin, 1903), p. 334 ff.
3. 9 Stat. 466.
4. Gates, op. cit., p. 359.
5. Railroad Co. v. Baldwin, 103 U.S. 426 (1880).
6. Northern Pacific Railway v. Townsend, 190 U.S. 267 (1903).
7. Holland v. Northern Pacific Railway Co., 214 Fed. 920 (9th Cir. 1914).
8. E. A. Crandall, 43 L.D. 556 (1915).
9. U.S. Department of the Interior, "Statement Showing Land Grants Made by Congress to Aid in the Construction of Railroads, Wagon Roads, Canals and Internal Improvements," compiled from records of the General Land Office by order of the Secretary of the Interior (Washington, D. C., 1915).
10. 18 Stat. 482, 43 U.S.C. § 934.
11. Act of September 20, 1850, 9 Stat. 466 (Sec. 5); Act of June 10, 1852, 10 Stat. 8 (Sec. 5); Act of August 4, 1852, 10 Stat. 28 (Sec. 4); Act of February 9, 1853, 10 Stat. 55 (Sec. 5).
12. Act of September 29, 1890, 26 Stat. 496, 43 U.S.C. §§ 904-907.
13. 34 Stat. 482.
14. 35 Stat. 647.
15. 41 Stat. 621, 43 U.S.C. § 913.

16. 42 Stat. 414, 43 U.S.C. § 912.
17. U.S., House, Subcommittee on Public Lands of the Committee on Interior and Insular Affairs, Hearings, Use and Disposition of Railroad Right-of-Way Grants, Ser. No. 9, 87th Cong., 1st Sess., 1961, p. 29.
18. 44 AM. Jurc. 338.
19. 41 Stat. 621, 43 U.S.C. § 913.
20. Letter from State Director, California, to Director, Bureau of Land Management, Washington, D.C., "Alleged occupancy Trespass on Railroad Grant Lands," January 18, 1963.
21. Letter from M. L. Yuhas, Project Officer, Use and Occupancy Study, Public Land Law Review Commission, to Daniel, Mann, Johnson, & Mendenhall, June 27, 1969. Reference was made to the intensive search that revealed no data available on number of tracts on railroad rights-of-way which were conveyed and on which the Government's interest had not been conveyed.
22. The Atomic Energy Commission reported but had no use by other agencies.
23. Wholly-owned Government Corporations are in an excepted category. See 20 Dec. Comp. Gen. 699 (1941); and 31 Dec. Comp. Gen. 329 (1952).
24. 10 U.S.C. § 101(5).
25. JAGR 1963/2275 (30 September 1963).
26. U.S. Department of the Interior, Public Land Statistics 1968, Bureau of Land Management (Washington, D.C., 1968).
27. Exclusive of U.S. Forest Service data.
28. Exclusive of U. S. Forest Service data.
29. Rights-of-way were reported by the Bureau of Land Management as controlling agency. In checking the Code of Federal Regulations (2234.1-1) it was ascertained that such authorization is not utilized for Federal agencies. Discussion with Mr. Ralph Collings, Senior Realty Officer, Bureau of Land Management, Riverside, California, revealed that some of

the Bureau of Land Management offices have erroneously used rights-of-way for Federal agencies when the proper authorizing instrument is the 44LD513 notation. In view of this the acres reported in rights-of-way were combined with acres reported in 44LD513 data.

30. See separate report on Forest Service data, which reports solely by Memoranda of Understanding.
31. See 43 C. F. R. § 2236.
32. 31 Dec. Comp. Gen. 329 (1952).
33. 43 C. F. R. § 2234.1-1(a)(2).
34. 44 L. D. 513, Instructions to General Land Office.
35. U.S. Department of Interior, op. cit., (1957 through 1968).
36. 33 Stat. 628.
37. President's Reorganization Plan No. 3, Secs. 402 and 403, 5 U. S. C. § 1336-16.
38. Issued 16 November 1964.
39. 50 Stat. 731, 16 U. S. C. § 832, et seq.
40. 33 Stat. 628.
41. 36 Stat. 1253.
42. President's Reorganization Plan No. 3, Secs 402 and 403, 5 U. S. C. § 1336-16.
43. 16 U. S. C. § 505a, b.
44. Act of December 22, 1944, 58 Stat. 889, 890, and 891.
45. Act of June 12, 1960, 16 U. S. C. § 528-531.
46. 70 Stat. 1119, 16 U. S. C. § 742a-k.
47. 16 U. S. C. § 460k-4.

48. Professor of Botany at U.C.L.A., Dr. Mathias is chairwoman of the Natural Lands and Water Resources Committee - the state natural area system formed by the University of California Faculty representatives, one each from the various natural environment fields (e.g., zoology, geology, etc.) were given a one-year leave of absence to select initial sites containing the representative fauna and flora of California. Emphasis was on endangered species and site accessibility to University of California campuses.
49. Horace Albright is former director of the National Park Service.
50. Federal Committee on Research Natural Areas. A Directory of Research Natural Areas on Federal Lands of the United States, (Washington, D.C.: U.S. Government Printing Office, 1968), p. 2.
51. Ibid., pp. 89-104: Forest, Western Shrub, Western Grasslands, Western Shrub and Grasslands Combinations, Central and Eastern Grasslands, Central and Eastern Grassland and Forest Combinations, Other Vegetative Types, Zoologic, Geomorphologic, Petrologic, Mineralogic, Paleontologic, Aquatic, and Pedologic.
52. There is a certain consistency necessary as regards soil, climate, etc., necessary in the definition of an ecosystem. The climatic variations must be within these limits

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

